

**A STUDY OF DYADIC ADJUSTMENT IN MOTHERS AND
FATHERS OF HEALTHY FULL TERM AND
HOSPITALISED PREMATURE INFANTS.**

Melanie Sara Lees

Doctorate in Clinical Psychology, The University of Edinburgh,

August 1999.



DECLARATION

I declare that this thesis has been completed by myself and the work within it is my own.

Signed:

(Melanie Sara Lees).

Date: 4/11/99.

ACKNOWLEDGEMENTS

I would like to thank first of all Una MacFadyen for her support of the study in the Neonatal Units in the early stages of sample recruitment and beyond. Thanks also to the staff across all four hospital settings. Mainly, thanks go to the mums and dads who took the time to participate in the research and who offered words and notes of encouragement at all stages of the data collection. Many thanks to Wendy the librarian for locating some of the more obscure journal articles for the literature review. I am grateful to Leo Harding and Christine Puckering who gave comments on a draft of the introduction and Mick Power who gave some direction to my statistical analysis. Thanks also to Helen Stirling, my third year clinical placement supervisor, who listened to my moans and supported me professionally throughout the lengthy Ethics Board application procedure and beyond. Finally, many thanks to my own mum and dad (you know I never really believed Larkin, mum!), without whom I wouldn't have got this far, and to Steve and our own little bump for their patience.

ABSTRACT

The impact of childbirth is widely regarded as a 'normative crisis', with the impact on a couple's relationship being generally reported as negative, particularly for women. The impact of the 'crisis' of premature birth, however, and the consequent extensive period of infant hospitalisation in the Neonatal Intensive Care Unit (NICU), on the parental relationship has to date received little research attention. The present study addresses the hypothesis that mothers and fathers of premature infants will report different levels of dyadic adjustment to mothers and fathers of full term infants, and that mothers of premature infants will report different levels of adjustment to their spouses. In this study the parents of healthy full term and hospitalised prematurely born infants completed Spanier's (1976) Dyadic Adjustment Scale immediately following the birth of their baby and again at six to eight weeks post-discharge. The dyadic adjustment total and sub-scale scores are compared for the four groups. Semi-structured interviews with mothers and fathers of premature infants were conducted individually at follow-up, on the sources of marital stress in the NICU. These are transcribed and their content analysed. The findings and their implications are discussed.

CONTENTS

1	Introduction	1
1.0	General Introduction	2
1.1	Impact of Dyadic Adjustment	3
1.1.1	Gender differences in dyadic adjustment	6
1.1.2	Summary	7
1.2	Assessment of Dyadic Adjustment	7
1.2.1	Summary	10
1.3	Impact of Childbirth	11
1.3.1	Parental mental health following childbirth	11
1.3.2	Parental interaction patterns following childbirth	14
1.3.3	Dyadic adjustment following childbirth	16
1.3.4	Explanations of decreased dyadic adjustment following childbirth	19
1.3.5	Role theory	25
1.3.6	Summary	29

1.4	Impact of Premature Birth	29
1.4.1	Immediate consequences of premature birth	31
1.4.2	Short-term consequences of premature birth	36
1.4.3	Parental interaction patterns following premature birth	38
1.4.4	Summary	44
1.5	Dyadic Adjustment Following Premature Birth	44
1.6	Methodological Issues Arising from the Literature Review	46
1.7	Research Questions	47
1.8	Hypotheses	48
2	Method	50
2.1	Design	51
2.2	Participants	51
2.2.1	Recruitment	51

2.2.2	Sample Size	51
2.2.3	Sample Characteristics	52
2.3	Measures	53
2.3.1	Dyadic Adjustment	53
2.3.2	Interview Schedule	56
2.4	Procedure	56
2.4.1	Time One	56
2.4.2	Time Two	58
2.5	Data Analysis	58
2.5.1	Statistical Analysis	58
2.5.2	Qualitative Analysis	58
3	Results	60
3.1	Sample Characteristics	61
3.1.1	Normality of the Data	62
3.1.2	Levels of Significance	63

3.1.3	Demographic Data	63
3.2	Hypothesis One - Dyadic Adjustment at Time One	65
3.3	Hypothesis Two - Dyadic Adjustment at Time Two	67
3.4	Hypothesis Three - Pre-Term Dyadic Adjustment	74
3.5	Thematic Analysis of Qualitative Data	77
3.5.1	Role Conflict	77
3.5.2	Shared Roles	79
3.5.3	Traditional Gender Roles	80
3.5.4	Role Expectations	81
3.5.5	Role Competence	83
3.6	Summary of Results	84
3.6.1	Quantitative Findings	84
3.6.2	Qualitative Findings	85
4	Discussion	87

4.1	Summary of the Main Findings	88
4.2	Participant Recruitment	88
4.2.1	Political Issues Encountered	89
4.2.2	Participant Criteria	90
4.2.3	Parental Anxiety	91
4.3	Sample Attrition	92
4.4	Hypothesis One	92
4.5	Hypothesis Two	99
4.6	Hypothesis Three	103
4.7	Application of Role Theory	104
4.8	Methodological Limitations	105
4.9	Conclusions and Future Directions	106

References

Appendices 1-6

Ethics of Research Committee Correspondence

Dyadic Adjustment Scale

Interview Schedule

Participant Information Sheets and Consent Forms

Quantitative Data Output

Qualitative Data

LIST OF TABLES / FIGURES

Table 3.1:	Participant Numbers at One to Two Weeks Postpartum and Six to Eight Weeks Post-Discharge	62
Table 3.1.3a:	Demographic Data for the Parents of Premature and Full Term Infants	64
Table 3.1.3b:	Sample Characteristics at One to Two Weeks Postpartum and Six to Eight Weeks Post-Discharge	65
Figure 3.2:	Mean Total Score on DAS at One to Two Weeks Postpartum for Parents of Premature and Full Term Infants	66
Table 3.2:	Mean Total and Sub-Scale Scores on the DAS at One to Two Weeks Postpartum for Parents of Premature and Full Term Infants	67
Figure 3.3a:	Mean Total Score on DAS at Six to Eight Weeks Post-Discharge for Parents of Premature and Full Term Infants	69
Table 3.3a:	Mean Total and Sub-Scale Scores on the the DAS at Six to Eight Weeks Post-Discharge for Parents of Premature and Full Term Infants	70
Figure 3.3b:	Comparison of Mean Total Scores on DAS at One to Two Weeks Postpartum and Six to Eight Weeks Post-Discharge for Parents of Premature and Full Term Infants	71

Table 3.3b:	Mean Scores on the DAS at One to Two Weeks Postpartum and Six to Eight Weeks Post-Discharge for Parents of Premature Infants	72
Table 3.3c:	Mean Scores on the DAS at One to Two Weeks Postpartum and Six to Eight Weeks Post-Discharge for Parents of Full Term Infants	73
Table 3.3d:	Interaction of Time and Pre-Term Status	73
Table 3.4a:	Mean Scores on the DAS at One to Two Weeks Postpartum and Six to Eight Weeks Post-Discharge for the Mothers of Pre-Term Infants	75
Table 3.4b:	Mean Scores on the DAS at One to Two Weeks Postpartum and Six to Eight Weeks Post-Discharge for the Fathers of Pre-Term Infants	76

CHAPTER 1 - INTRODUCTION

1.0 General Introduction

‘Man hands on misery to man.
It deepens like a coastal shelf.
Get out as early as you can,
And don’t have any kids yourself.’

(Larkin, 1974, ‘This Be The Verse’, vs. 3)

Despite Larkin’s negative view of parenthood and child-rearing the birth of an infant is generally considered a positive event by society and within the family. However, there is consistent evidence that even when the impact is not entirely negative it is at least profound (Dohrenwend, Krasnoff, Askenasy & Dohrenwend, 1978; Worthington & Buston, 1986).

The traditional view has been that of ‘Parenthood as Crisis’ (Le Masters, 1957), with the total impact of the crisis regarded as dependent on the nature of the crisis event, the state of organisation or disorganisation of the family at the point of impact, the resources of the family, and its previous experience with crisis (Le Masters, 1957). Several studies report a negative impact of healthy full term childbirth on parents and their relationship (Miller & Sollie, 1980; Wallace & Gotlib, 1990), and propose conflict over roles for many couples in the immediate postpartum period (McGuire & Gottlieb, 1979; Rustia & Abbott, 1990). For parents of hospitalised premature infants the ‘crisis’ may be all the more severe (Shellabarger & Thompson, 1993), and parental

role conflict in the NICU may have a marked detrimental impact on their relationship, or on what has been conceptualised for measurement purposes as their level of 'dyadic adjustment' (Spanier, 1976).

1.1 Impact of Dyadic Adjustment

Dyadic adjustment refers to the quality of a couples' relationship (Spanier & Cole, 1976), with high levels of adjustment indicating a better quality relationship (Spanier, 1976). Easterbrooks & Emde (1988) emphasise that the quality of the marital relationship is important to the emotional climate of the family, parents' views of their children and the parents' role in the family system. Dickie (1987) also highlights some aspects of marriage that may impact on parenting in terms of emotional support, cognitive support, agreement in child care, physical support and sharing child care.

Marital problems constitute a significant proportion of referrals to psychological services (Cummings & O'Reilly, 1997). With a greater acceptance of counselling and psychological services among the population, Casas and Ortiz (1985) urge that counsellors and researchers improve their understanding of the dynamics of marriage and family relationships. The incidence of depression is reportedly higher for both partners following the termination of a relationship (Monahan, 1962). This has implications also for the other members of a family. A number of studies have demonstrated that repeated exposure to conflict between adults is related to increased stress in children (Cummings, Ballard, El-Sheikh & Lake, 1991; Grych & Fincham, 1993). Fincham, Grych & Osborne (1994) propose that as marital and parent-child

relations are interdependent then conflict in the marriage may affect how parents respond to and interact with their children.

Much of the work in this area, spanning two decades, provides support for the assertion that tensions in the parental dyad are linked to increased child dysfunction, in terms of emotional and behavioural disturbance (Jouriles, Pfiffner & O'Leary, 1988; Reid & Crisafulli, 1990). A recent review of studies reports that low marital quality undermines the parenting role (Cummings & O'Reilly, 1997), but high reported levels of marital quality can support high quality parenting (Goldberg & Easterbrooks, 1984). Cummings & O'Reilly (1997) are critical, however, of the lack of differentiation between family contexts in this body of research and an over-reliance on questionnaire and correlational methods.

A controlled comparison of maritally distressed and non-distressed mothers by Bond & McMahon (1984), using Spanier's (1976) Dyadic Adjustment Scale (DAS), reports that distressed mothers perceive themselves as more anxious and depressed. In addition, they perceive their children as having more behavioural problems. However, from the authors' observations, these children were not found to be more badly behaved than those of the non-distressed mothers (Bond & McMahon, 1984). Similarly, Jouriles et al. (1988) assessed 60 mother-toddler dyads on reports of marital satisfaction and observed incidence of toddler conduct problems. The authors report, however, that marital conflict is positively correlated with observations of toddler deviance and maternal reports of conduct problems (Jouriles et al., 1988).

Goldberg & Easterbrooks (1984) report from their findings with a relatively large sample of 75 families with one 20 month old child, that good marital quality is associated with optimal toddler functioning and sensitive parenting.

An explanation of the observed increased incidence of child behaviour problems has been proposed by Belsky (1984), who states that poor marital adjustment may undermine effective parenting skills and routines. In support of this Gottman & Katz (1989) report that, within the context of an observed teaching task, mothers and fathers who reported high levels of marital distress have a parenting style that the researchers classified as 'cold, unresponsive, angry, and low in limit setting and structuring' (p. 379). They added that the four to five year old children in their study belonging to parents high in marital distress, tended to interact less in play with peers and display more negative peer interactions (Gottman & Katz, 1989). However, the sample of 59 families observed in this study was positively skewed, the majority reporting high levels of marital satisfaction on the Locke-Wallace Marital Adjustment Test (Locke & Wallace, 1959). Therefore, the under-representation of families low in marital satisfaction may have affected the findings in this study.

Kerig, Cowan & Cowan (1993) assessed 36 mothers and fathers engaging in play and verbal interaction with their three year olds. The authors also included a self-report evaluation of marital satisfaction, as assessed by the Locke-Wallace Marital Adjustment Test. They report that parents' mean length of utterance to their child is systematically longer in more satisfied couples, and emphasise this is a consistent

finding for both mothers and fathers. The authors conclude that the quality of a couples' relationship may help to shape family climate, which is in turn reflected in parent-child verbal interactions. Broom (1984) also hypothesised and reports that mothers with higher self-report marital satisfaction scores are observed to have more responsive interactions with their infants than those with lower levels of marital satisfaction.

There is a significant body of evidence indicating that marital adjustment impacts on parents and the quality of parenting (Cummings & O'Reilly, 1997). Questions remain, however, due to the correlational nature of the majority of the research, from which it is difficult to make conclusions about causality.

1.1.1 Gender Differences in Dyadic Adjustment

Following an initial 'honeymoon' period (Worthington & Buston, 1986), marital satisfaction has been found to decrease modestly over time and this overall decline in satisfaction appears more pronounced for wives than for husbands (Belsky, Spanier & Rovine, 1983). A large body of research has reported consistent differences between men's and women's reports of marital adjustment (Waldron & Routh, 1981; Wallace & Gotlib, 1990). For example, a frequently cited study of marital distress, employing the DAS (Spanier, 1976), reveals that, when husbands report significant levels of marital distress, both they and their wives report greater levels of depression, higher life stress and poor coping (Whiffen & Gottlib, 1989). However, when wives are significantly maritally distressed the effects are restricted to their own functioning, and

do not tend to affect their husbands' social and psychological functioning. Thus, these findings imply that the impact of marital distress is different for males and females within the same relationship.

1.1.2 Summary

Low levels of dyadic adjustment have been associated with poor marital outcome, often resulting in divorce and separation (Casas & Ortiz, 1985). The termination of a relationship may have a negative impact on the mental health of both partners and on children in the family (Casas & Ortiz, 1985). Prolonged periods of marital distress may have a significant negative effect on any children in the family, as a result of poor quality parenting and more negative parent-child interactions (Fincham et al., 1994). The overall impact of poor dyadic adjustment appears more pronounced for women than their partners (Whiffen & Gottlib, 1989).

1.2 Assessment of Dyadic Adjustment

A number of complex methodological issues arise in the study of dyadic adjustment. Kazak, Jarmas & Snitzer (1988) note that in the past there have been few attempts to differentiate 'adjustment' from 'satisfaction'. The authors state that the emphasis has been predominantly on measuring the concept rather than a clear conceptualisation of the underlying constructs. Sabatelli (1988) highlights a distinction in the literature between measures of marital adjustment, satisfaction and quality, but affirms that over the years boundaries between these concepts have become blurred. From a review of the marital quality literature, Fincham & Bradbury (1987) confirm that researchers

have, in the past, attempted to measure a concept which they have failed to adequately specify.

From research efforts over several decades that have attempted to define marital adjustment and distinguish between the various concepts of adjustment, quality, distress, and satisfaction, however, striking similarities of definition have emerged (Locke & Wallace, 1959; Spanier & Cole, 1976; Sabatelli, 1988).

Locke & Wallace (1959) in their account of the development of a short marital adjustment test define marital adjustment as the 'accommodation of a husband and wife to each other at a given time'. Fincham & Bradbury (1987) conceptualise marital quality as 'a spouse's global evaluation of his or her marriage'. Spanier & Cole (1976) describe marital or dyadic adjustment as a general, non-specific concept related to the functioning and success of the marital partners, which encompasses the concepts of satisfaction, cohesion, consensus and affectional expression, all of which are presumed necessary in achieving a harmonious and functional marital relationship. More specifically, adjustment is considered to be a major aspect of marital quality and one of the most general and measurable indicators in the marital quality research (Spanier, 1979). In summary, the measurement of adjustment focuses on an individual's account of selected aspects of the relationship with their partner which may provide insight for the researcher or the clinician into marital functioning.

Most researchers in this area concede there is a need for coherent measures of dyadic or marital adjustment (Spanier, 1976; Sabatelli, 1988; Sabourin, Lussier, Laplante & Wright, 1990). However, criticisms continue to be levelled by researchers at each others attempts to measure dyadic adjustment and design appropriate tools.

Norton (1983), in a critical review of marital quality indices, states that:

‘...the richness and complexity of a dyadic relationship, in general - and a marriage, in particular - demands an evaluative index that does not hide or distort potentially interesting, albeit sometimes subtle, independent variables’
(p. 141-142)

This supports Spanier’s (1976) multidimensional conceptualisation of dyadic adjustment. However, a number of researchers have proposed that measurement of marital quality should focus on a single non-confounded dimension (Fincham & Bradbury, 1987; Trost, 1985). A single item assessment could give a general indication of the overall quality of a relationship but would fail to pinpoint problem areas, which may be of interest to the marital therapist or the researcher (Spanier, 1976; Sabourin et al., 1990).

Eddy, Heyman & Weiss (1991) note that attempts to measure ‘marital adjustment’ combine sentiment ratings with behavioural and cognitive self-report. They emphasise that measures such as the DAS were not designed as measures of ‘marital satisfaction’, and although they correlate highly they are not indicators of the same general construct. They report that the DAS is a multi-dimensional measure and

caution that 'adjustment' is not a synonym for 'satisfaction', whilst acknowledging that satisfaction is a significant component of the DAS (Eddy et al., 1991).

In an extensive review of the available measures in marital research, Sabatelli (1988) is critical of adjustment quality measures, such as Spanier's (1976) DAS, which blend subjective and objective characteristics in a self-report format. He cautions that the more objective characteristics of a relationship may be confounded by the more subjective impressions of a relationship, particularly when the items are elicited simultaneously. Measures of adjustment quality, such as the DAS, which assess the individual's judgement of the adjustment of the relationship with their partner are, however, most often the assessment of choice for both the marital therapist and the researcher.

1.2.1 Summary

In the debate over the definition of terms in the area of marital adjustment and quality, researchers may have lost sight of the ultimate goal of assessment. The concept of 'dyadic adjustment', as defined by Spanier & Cole (1976), albeit widely criticised in the literature, is the most widely comprehended and cited. Despite earlier criticisms, the DAS is 'based on a clearly articulated conceptual foundation' (Sabatelli, 1988, p. 897), and is easily administered and scored in a range of clinical settings. The DAS (Spanier, 1976) is seen to provide a comprehensive account of a complex multidimensional concept. It remains the most commonly used self-report assessment of marital distress by researchers and clinicians alike (Wallace & Gotlib, 1990).

1.3 Impact of Childbirth

Dohrenwend et al. (1978), in an early large-scale survey of over 2500 adults, report childbirth and the immediate postpartum period to be the sixth most stressful life event of 102 listed. Lavee, McCubbin & Olson (1987) conclude from their findings in a large-scale community-based study that life events and transitions have no direct effect on family well-being, but that they do intensify pre-existing intra-family strain, which in turn negatively affects marital adjustment and perceived well-being. Traditionally then, in the research literature at least, parenthood is paralleled with 'crisis' (Le Masters, 1957). However, more recently this view has been called into question. Worthington & Buston (1986) established, for example, the transition to parenthood as a 'normative' crisis, which 'seems to disrupt most marriages to some extent and some marriages to a great extent' (p. 453).

1.3.1 *Parental Mental Health Following Childbirth*

Several studies have considered the impact of childbirth and the early postpartum period on parental psychopathology, and the findings are consistent. A well-controlled longitudinal study of 120 couples with a first child suggests that both personal and marital stress increase after birth, particularly for mothers (Miller & Sollie, 1980). The authors note that feelings of personal well-being are higher in the first few weeks immediately after the birth but decline in both mothers and fathers by the time the baby is seven to eight months old. They failed, however, to assess parents in the intervening period from a few weeks postpartum to eight months later. A recent study, in support of this, by Zelkowitz & Milet (1996), reports a significant increase in

psychological symptoms at six to nine weeks postpartum for parents of healthy full term infants, which may signify the end of the 'baby honeymoon' (Worthington & Buston, 1986).

A larger body of research exists on the incidence of postnatal depression in women, and the impact of this on the relationship with her infant and its later cognitive and emotional development (Watson, Elliott, Rugg & Brough, 1984; Murray, 1992; Warner, Appleby, Whitton & Faragher, 1996). From a meta-analysis of 59 studies of non-psychotic postpartum depression, O'Hara & Swain (1996) cite a prevalence rate of 13% of postnatal depression for women in the first few months postpartum. They also propose one of the strongest predictors of postpartum depression as a poor marital relationship accompanied by low social support. By six months postpartum the majority of studies report recovery rates of approximately 70% for maternal postnatal depression (Cooper, Campbell, Day & Bond, 1988). However, the studies reviewed evaluate various time periods postpartum and employ a range of different measures of depression, making direct comparison of outcomes difficult.

Research involving direct comparison of mothers' and fathers' reactions to birth is sparse and methodologically flawed. Berman & Pedersen (1987) summarise some of the methodological problems in examining men's transitions to parenthood, one of the main problems being that few researchers have studied the same phenomena in a similar way for mothers and fathers, leading to frustrations in making comparisons.

The methodological flaws in these studies may, therefore, have contributed to the conflicting findings.

One of the more recent developments in the literature comparing the experiences of mothers and fathers is the assessment of paternal postnatal depression. The literature has debated the existence of postnatal depression in fathers for almost 20 years now. Zaslow, Pederson, Cain, Suwalsky & Kramer (1984) assessed 37 middle-class couples with a firstborn four month old infant for paternal depression. They report that 62% of fathers experience 'blues' following the birth of their baby, which, on the basis of report from qualitative interview, were associated with fewer vocalisations to the baby, diminished proximity to the infant and less care-giving and touching. Ballard, Davies, Cullen, Mohan & Dean (1994) employed the Edinburgh Postnatal Depression Scale (EPDS) (Cox, Holden & Sagovsky, 1987), and report figures of more than 10% of postnatal depression in fathers at three months postpartum, which Ballard & Davies (1996) caution may impact on the emotional development of the infant, and may lead in turn to poorer marital adjustment.

Ferketich & Mercer (1995) assessed 79 experienced fathers, with one or more children, and 93 inexperienced, or first-time, fathers at postpartal hospitalisation and at one, four, and eight months following the birth of their infants. They report significantly higher depression among the inexperienced fathers at four and eight months, and conclude that first-time fathers experience the additional stress of dramatic changes in identity and lifestyle (Ferketich & Mercer, 1995). However, a

recent controlled study reports no significant increase in men's depressive symptoms at eight weeks following the birth of a child (Deater-Deckard, Pickering, Dunn & Golding, 1998). In this study, fathers assessed prior to the birth, at 18 weeks gestation, did not show a significant reduction in EPDS scores at postpartum follow-up. Deater-Deckard et al. (1998) propose then, that the 'constellation of events surrounding the birth did not constitute an added risk for the vast majority of these men' (p. 822).

1.3.2 Parental Interaction Patterns Following Childbirth

There is consistent evidence that mothers and fathers interact in different ways with their new born infants. Belsky, Gilstrap & Rovine (1984) compared mother-infant and father-infant interactions in 72 families at one, three and nine months. The authors report that mothers engage in far more interactions with their infants at all ages studied. In addition, fathers are found to be even less involved with later born children than their first born child than mothers (Belsky et al., 1984). Clarke-Stewart (1978) observed 14 fathers and mothers interacting with their children at home at 15, 20 and 30 months. She argues that children enjoy and co-operate more in play with their fathers than their mothers, concluding that children respond to a more engaging play style on the father's part (Clarke-Stewart, 1978).

From a study of 40 fathers interviewed in their own homes after the birth of their first child, Beail (1985) also reports that all fathers are involved in play and walking their baby around, but that activities such as bathing and changing appear to be less popular

and result in much lower levels of participation for fathers. Both parents have been observed to behave differently with their infants in the presence of their partner, with, for example, an overall reduction in level of interaction for mothers and fathers (Parke & Anderson, 1987). Belsky (1979) observed 40 middle-class couples and their 15 month old infants in their own homes, and reports that more active parenting is observed when parents are alone with their child rather than in the presence of their spouse. Thus, if the mother is always present a further decrease in fathers' overall level of involvement may occur, and result in increased couple conflict.

In contrast to the picture painted in the research of the distant, uninvolved father, only available for play with his infant (Cummings & O'Reilly, 1997), Lamb (1997) presents a review of the research literature on fathers and childbirth and concludes that fathers are sufficiently responsive to their infants and form attachments at the same time as mothers. In addition, he proposes that not only do mothers and fathers engage in different types of interactions with their infants, but fathers influence their children indirectly, by affecting maternal behaviour. Lamb (1997) discusses the 'hierarchy of attachment', by which infants are observed to prefer their mothers over their fathers, concluding that social conventions, rather than any biological imperatives, result in the maintenance of traditional roles within the family.

It therefore appears that fathers may be much less available for interactions, participate less in care-giving and engage most often in play with their infants (Belsky & Volling, 1987). However, a number of studies have shown that fathers can be just

as stimulating (Jones, 1981), interactive (Clarke-Stewart, 1978) and caring with their infants as mothers (Lamb, 1997), despite the consistent reports of fathers' lower levels of actual involvement. Furthermore, this lower level of involvement by fathers as compared to mothers may be a product of social pressures, rather than a lack of interest in or attachment to their infant on the part of fathers.

Cowan, Cowan, Heming, Garrett, Coysh, Curtis-Boles & Boles III (1985) summarise the differences between men and women on their journeys to parenthood as 'separate trains heading down different tracks'. The literature reviewed previously lends some weight to this suggestion. The authors hypothesise, furthermore, that interpersonal conflicts stimulated by these growing differences between partners may begin to have a significant impact on the marriage (Cowan et al., 1985).

1.3.3 Dyadic Adjustment Following Childbirth

Engfer (1988) proposes that the arrival of a child is a serious test for a relationship, and that the responsibilities of parenting induce 'profound and stressful changes' which must be negotiated by the couple. Le Masters (1957) reports that 38 out of 46 couples record 'extensive' or 'severe' crisis in adjusting to their first child, and that 35 out of these 38 were planned or wanted pregnancies. However, 34 of the 38 couples rate their marriages as 'good' or 'better' than before the pregnancy. Le Masters (1957) concludes that 'parenthood and not marriage is the real "romantic complex" in our culture' (p. 354). However, this fails to acknowledge a possible link between strain at parenthood and dyadic adjustment.

Similarly, McHale & Huston (1985), in a longitudinal study of 168 newlywed couples, report that both parent and non-parent groups report significant declines in marital affection and satisfaction. The findings from this study indicate the importance of using comparison groups in research on the transition to parenthood. Moss, Bolland, Foxman & Owen (1986) in a longitudinal study of marital satisfaction up to one year postpartum, report that their sample of 96 mothers and 89 fathers showed only a slight decline in marital satisfaction over this period.

A significant number of studies, however, conflict with these reports and suggest a significant decline in marital quality following childbirth (Ryder, 1973; Cowan et al., 1985; Worthington & Buston, 1986). Cowan et al. (1985) assessed 47 couples expecting their first child and 15 couples who were undecided about having children at pre-test. All couples were assessed, using the Locke-Wallace Marital Adjustment Test (Locke & Wallace, 1959), at nine and 21 months after the pre-test on their transition to parenthood. They report that couples with a first child show more negative changes over time, which in turn contributes to lowered marital satisfaction (Cowan et al., 1985). However, the assessment of dyadic adjustment in 'couples' must be interpreted with caution. In the Cowan et al. (1985) study, for example, the authors fail to discriminate between mothers' and fathers' reports of marital quality.

Women report significantly greater declines in marital quality from pregnancy to three months postpartum than men (Belsky et al., 1983). Ryder (1973) assessed the marital satisfaction of 112 couples with and without children, using the Locke-Wallace

Marital Adjustment Test (LWMAT) (Locke & Wallace, 1959), and reports that women with a child are more likely to report that their husbands are not paying them enough attention. Waldron & Routh (1981) replicated these findings with 46 married couples expecting their first child, assessing them in the last trimester of pregnancy and six weeks after the birth by means of the LWMAT (Locke & Wallace, 1959). They report a significant decrease in marital adjustment for women following the birth and a similar but non-significant decline in scores for men. In addition, the wives' pre-test marital adjustment scores were significantly higher than their husbands' and the overall change at post-test is significantly greater for women than for the men in this study (Waldron & Routh, 1981).

Feldman (1987) assessed 30 couples in the last trimester of pregnancy and at seven to nine months after birth, using the Bem Satisfaction Scale (Bem, 1976). She reports that when the husband describes increased marital tensions and poor marital adjustment during pregnancy, his wife subsequently experiences increased levels of parenting stress at follow-up. For women in the sample, a good marriage during pregnancy gave protection against strain at parenthood, but marital variables for men were not particularly successful at predicting fathers' parenting stress. Feldman (1987) concludes that marital problems during pregnancy and early postpartum may threaten 'the very foundation of women's lives', but play lesser roles in predicting parenting stress in the lives of their husbands. However, the use of the Bem Satisfaction Scale as a comprehensive measure of marital stress can be criticised on the basis that only five of the 39 items assess satisfaction with the marital relationship.

Similarly, Miller & Sollie (1980) suggest that new mothers experience a significant increase in marital stress from one to eight months postpartum, but for men this remains stable. In addition, Miller & Sollie (1980) report an initially short period of high marital satisfaction in the first month postpartum for both mothers and fathers, referred to as the 'baby honeymoon' (Worthington & Buston, 1986). Wallace & Gotlib's (1990) longitudinal study of couples pre and post their first child also reports a peak in overall ratings at one month postpartum, and demonstrates a significant decrease in marital adjustment at six months postpartum. In addition, couples' adjustment at six months is reportedly significantly lower than that during pregnancy, which provides additional support for the hypothesised 'honeymoon' period immediately following the birth of a child.

Despite some conflicting findings in the literature reviewed it appears overall that the birth of a child may lead to a decline in marital satisfaction for many couples when compared to childless couples, and that women may be particularly vulnerable to such a decline. A number of researchers and clinicians working in the area have proposed various explanations for these findings.

1.3.4 Explanations of Decreased Dyadic Adjustment Following Childbirth

Several accounts of the decline in marital satisfaction or dyadic adjustment following the birth of a child have been put forward (Goldberg, Michaels & Lamb, 1985; Whiffen & Gotlib, 1989). In practical terms, the effort in raising children places finite limits on parent's time and energy, making it harder for them to engage together in

mutual activities that maintain and build marital intimacy (Cowan et al., 1985). The birth and rearing of a new baby also imposes changes in household routines for couples and therefore effective marital communication may be more important than ever (Belsky & Isabella, 1985). Cowan et al. (1985) summarise the major impact of childbirth as being its potential for creating 'disequilibrium' in couples who are vulnerable from lack of sleep, and major alterations in their roles and intimate relationships. These couples may be affected by unexpected differences with their partners which may lead to increased marital conflict (Cowan et al., 1985).

This adds weight to the suggestion of a growing disparity in the roles and responsibilities of couples with a new born infant. Pellegrom & Swartz (1980) observe that the responsibilities of childbirth initiate significant changes for a woman's relationship with her partner and significant others. Humenick & Bugen (1987) report a surprising emergence of traditional or gender-based division of labour among their sample of 37 well-educated, middle-class parents. The couples were interviewed prior to the birth of their first child and asked to assess how much time they expected to spend with their three week old infant. They were assessed again at home after the birth. Although mothers had anticipated spending more time with the infant than fathers, at three weeks they report spending significantly more time than they had predicted in caring for their infants. In contrast, fathers initially expected to spend less time than mothers in caring for infants, but at three weeks they report spending even less time than they thought they would (Humenick & Bugen, 1987).

Worthington & Buston (1986) emphasise that despite the impact of the womens' movement on society, couples' division of labour following childbirth generally follows traditional lines. Furthermore, Rustia & Abbott (1990) contend that 'stereotypical conceptions' continue to influence mothers' and fathers' child-care activities. For example, even when women are the major financial contributors to the family income, the re-distribution of child-care tasks does not increase the father's behavioural input to match that of his wife (Rustia & Abbott, 1990).

Ruble, Fleming, Hackel & Stangor (1988) assessed 670 women at six phases in late pregnancy and postpartum, targeting the quality of their marital relationship and expectations regarding the division of household labour. Women record less positive feelings for their husbands after birth than during pregnancy, and also report undertaking more of the housework and child care than they had anticipated. These expectancy violations are considered to affect some aspects of the marital relationship but not necessarily the core affective feeling, as the women in the study do not report feeling any less close to their partners. The authors conclude, somewhat contentiously, that many women may enter this period of transition with 'unrealistically high standards' (Ruble et al., 1988). A further criticism of this study is of the method of assessing marital adjustment, which was via a non-standardised six-item set of questions, rating attitudes on a 7-point scale.

Belsky (1985) reports on a survey of mothers and fathers investigating their expectations of how a child would affect their lives. Their actual experiences were re-

assessed at three and nine months postpartum. It is suggested that parents whose postnatal experiences are more negative than they had predicted also experience a more negative change in their relationship. This was found to be more prominent for women than their husbands (Belsky, 1985). Belsky, Lang & Huston (1986) also observed that women whose burden of household chores increases the most, experience the most negative change in the quality of their marriage relationship. However, it must again be noted that these studies of expectancy violations employ a range of differing tools in the assessment of dyadic adjustment.

Rustia & Abbott (1990) assessed the role expectations of 53 married and cohabiting couples every three to four months following the birth of their infant, until the child was two years old. They report that over the first year mothers expect more help from fathers than they actually receive. However, from the end of the first year, mothers begin to lower their expectations until they eventually match the fathers' actual levels of increased role performance by the time the child is two years old. Rustia & Abbott (1990) propose that mothers are often compelled to surrender some of the demands on their partner following childbirth, but little is known of the potential impact of this on the woman's perception of the marriage itself.

Despite women's apparent dissatisfaction with low levels of paternal involvement following childbirth, it has been suggested that if this were to be increased many women would feel 'pushed out' (Goldberg et al., 1985). Greenberg & Morris (1974) note, from a qualitative, interview-based study, that although the wives in their sample

were pleased to see their husbands involved with the new born infant, they also felt threatened in an area of their own 'staked-out territory'. These issues of competition between mothers, fathers and even their infants, have been discussed in a number of review papers (Lamb, 1997). For men the transition to parenthood confronts them with a new set of difficult issues, including significant changes in the marital relationship, feelings of rivalry with the new infant, and anxieties about the provider role (Zaslow et al., 1984).

Thus, although current research emphasises the importance of the father's role in child development (Lamb, 1997), social and work structures are seen to 'push fathers out' at a time when both parents may be anticipating greater father participation. In a review of research findings on the role of the father in child development (Lamb, 1997) the majority of men in the 90's are found to want more involvement in parenting (Hochschild, 1995), but it would appear that the majority of women do not want their husbands to be more involved than they currently are (Pleck, 1981). Lamb (1997) argues that this may be because mothers feel their husbands are incompetent or fear that increased paternal involvement may threaten fundamental power dynamics within the family.

Direct conflict may occur between couples as mothers may feel so attached or 'in love' with their infant that they are reluctant to share this special relationship with the father (Yogman & Kindlon, 1998). It has been suggested that the ideal role for the father may be one of 'play partner', 'complementary' to and not 'competitive' with

the mother (Belsky et al., 1984). Although a number of researchers would contend this (Clarke-Stewart, 1978; Lamb, 1997).

Dickie (1987) suggests that fathers may need more support and encouragement than mothers for direct interaction with their infants, since our culture recognises the primacy of mother-infant relationships but not fathers'. Rustia & Abbott (1990) propose that fathers be provided with extra assistance in their acquisition of this new role, with formal anticipatory guidance in prenatal classes and in the Post Natal wards prior to mother-infant discharge. The authors conclude that 'women have had the benefit of a lifetime of socialisation experiences which prepare them for motherhood, while most men have not had the experiences needed to prepare them for equal involvement in child care' (Rustia & Abbott, 1990, p. 153).

The birth of the first child forces couples to adjust from an 'adult-centred dyad' to a 'child-focused triad' (Broom, 1984), leading in turn to significant changes in both mothers and fathers (Belsky & Rovine, 1990) and temporarily destabilising the relationship between them (Worthington & Buston, 1986). There has been little explicit theory development on the conflicts inherent in role transitions for both men and women following childbirth. The application of traditional 'Role theory' to the interpretation of individual and family transitions following childbirth is now discussed.

1.3.5 Role Theory

Role transitions and life-event changes have long been recognised as stressful (Holmes & Rahe, 1967). Parenthood involves adopting demanding and often unfamiliar roles that differ in kind and extent for mothers and fathers (Feldman, 1987). McGuire & Gottlieb (1979) argue that pre-natal classes do not anticipate how the conjugal relationship may be affected by the shift from a dyadic to a triadic communication network and also fail to promote consideration of changes in partners' role expectations for the post-natal period. The consequences of higher levels of paternal involvement per se, and on mothers, need to be considered, as for first-time parents in particular, there are no well established role definitions (Humenick & Bugen, 1987), but both parents bring role expectations to parenthood that may cause conflict (Beail, 1985).

Cowan et al. (1985) emphasise that gender roles become more differentiated and traditional following childbirth. Even in 'modern' egalitarian marriages, having a baby appears to precipitate more traditional role divisions (Dickie, 1987). Goldberg et al. (1985) suggest that the pregnancy period and beyond needs to be viewed as a time of change in instrumental roles for most couples.

Role Theory states that a major change in central life role has profound effects on the psychological self and the constellation of roles inside and outside the nuclear family (Thornton & Nardi, 1975). Role Theory emphasises that an individual's perception of a role is formed before taking on that role (Cottrell, 1942). Roles are dynamic, not

static, so that enactment of a role leads to further role development, which is influenced by interactions between the role-taker and relevant others. Social adjustment occurs as the role-taker performs the role according to expectations, and modifications occur as the role is internalised (Rubin, 1967).

A 'role' is described by Rubin (1967) as the conceptual cultural unit, and role acquisition is defined more specifically as the socially expected actions of an individual in a new social position to validate the occupancy of their position in society (Rustia & Abbott, 1990). Role acquisition begins with anticipatory socialisation during which the individual acquires knowledge and sometimes has direct practical experience of a role before actually occupying the role (Cottrell, 1942). Thus, for example, how a parent was raised themselves could influence how they later perform the role of mother or father. Role acquisition may also be influenced by the expectations of others (Thornton & Nardi, 1975), for example the more infant care activities the wife openly expects her husband to perform the more likely he is to attempt to enact such behaviours (Rustia & Abbott, 1990).

Role transitions are conceptualised by Cottrell (1942) as the process of moving in and out of roles in a social system. Maternal role transition is considered by Myers-Walls (1984) in a study of 42 women two months after the birth of their first child. The author notes that women at this time encounter the multiple roles of motherhood, marriage, housekeeping, and social life. It is predicted that women who attempt to fulfil these multiple roles which involve conflicting expectations or an overwhelming

number of tasks will have difficulty adjusting to those roles. This is referred to as role conflict. Similarly, Goode (1970) defines role strain or role conflict as the stress experienced by an individual when there are difficulties in complying with the expectations of a role.

Several authors have noted role conflict reported by both parents following childbirth (Humenick & Bugen, 1987; Belsky & Volling, 1987). Feldman & Nash (1984) in a short-term longitudinal study of 31 middle-class first-time parents present evidence of major role changes reported by mothers and fathers just six months after birth. In addition, the gender differences in this sample are more pronounced in the postpartum period than during the later stages of pregnancy, and tend to be in the direction of cultural sex-role prescriptions (Feldman & Nash, 1984).

In contrast, Yogman & Kindlon (1998), in a recent review of the relationship between fathers and their children, note that 'mass media touts the joys of fatherhood' and suggest that the traditional uninvolved father as the breadwinner in the 1950's has been replaced by men sharing child care with working mothers in the 1990's. However, they caution that the increase in men's involvement with their children has been real but modest. The authors add that most fathers are not equipped for this expanded role that is thrust upon them. This may be due to inadequate socialisation experiences or even because their spouses are reluctant for them to take a more active role (Yogman & Kindlon, 1998).

Berman & Pedersen (1987) also note that the father's 'provider' role appears to have changed, but that these men have little experience of or preparation for a new 'nurturing' role. Cowan & Cowan (1987) summarise that although men and women appear to support the idea of equal participation in child care, a number of studies report that behavioural change has not kept pace with the shift in ideology (Russell, 1982; Cowan et al., 1985). Berman & Pedersen (1987) state that modern fathers must battle against a number of factors, such as their socialisation history, societal constraints and complex dynamics within the parental relationship that both encourage and discourage their participation in child rearing.

Cottrell (1942) emphasises the importance of role clarity in the positive adjustment to role transition. He describes this as the degree to which there are 'explicit definitions of the reciprocal behaviour expected', rather than a set of 'ambiguous or vague definitions' (Burr, 1972). Following childbirth few couples actually discuss their new roles and expectations and those of their partner. This may be related to new mothers' ambivalence toward their partner's increased involvement with their baby (Cowan & Cowan, 1987). The authors suggest that 'just as men are uncertain about their competence in the parent role, women find it difficult to give up their historically significant role as the main expert on child rearing' (Cowan & Cowan, 1987, p. 168), lending some empirical support to Yogman & Kindlon's (1998) theory.

1.3.6 Summary

Despite some contradictory findings and methodological flaws in the literature, it appears that the impact of childbirth is profound for both mothers and fathers. It may have an overall negative effect on the mental health of both parents (Ballard et al., 1994; O'Hara & Swain, 1996). Mothers and fathers have been consistently observed as interacting in different ways with their infants (Parke & Anderson, 1987). Dyadic adjustment is decreased during the early postpartum period (Worthington & Buston, 1986), particularly for women (Miller & Sollie, 1980). Roles within the parental relationship change (Rustia & Abbott, 1990), and are observed to be more traditional (Dickie, 1987). It has been suggested that the adoption of gender role stereotypes may be a preferred relationship style for many women in the postpartum period, who view child rearing as their domain (Cowan & Cowan, 1987; Yogman & Kindlon, 1998).

1.4 Impact of Premature Birth

The birth of a premature infant is described as 'traumatic' for both parents (Curran, Brighton & Murphy, 1997), leading to depression about the failure to produce a normal infant (Hynan, 1991), fear and uncertainty regarding medical complications (Gennaro, 1988), concern for the child's future development (Patteson & Barnard, 1990), disruption of normal routines with extended periods of separation (Beckman & Pokorni, 1988), the inability to feel in control of their infants' care (Trause & Kramer, 1983), and difficulties forming attachments for fear of loss (Brooten, Gennaro, Brown, Butts, Gibbons, Bakewell-Sachs & Kumar, 1988). All of these factors may

exacerbate and increase the stresses that accompany the normal transition to parenthood. A 'normal' transition which, from the literature reviewed, may have a negative impact on parental mental health and their dyadic adjustment.

Furthermore, even when premature infants are discharged from hospital they differ markedly from full term infants in size and weight, and are less able to elicit social responses (Harrison & Magill-Evans, 1996) or to provide interactional experiences which enhance parental self-confidence (Levy-Shiff, Sharir & Mogilner, 1989). At first glance the immediate and short-term picture for the parents of the premature infant looks bleak.

Shellabarger & Thompson (1993) also describe the parents of the premature infant as 'thrust into crisis', and caution that they are at risk of developing inadequate parenting roles and skills and experiencing future breakdowns. A number of researchers have, however, begun to question the assumption of the 'crisis' of premature birth (Siegel, Gardner & Merenstein, 1993; Raeside, 1997). Brown, Rustia & Schappert (1991) propose, contrary to the belief that the birth of a premature infant precipitates a family 'crisis', that parents of low-birth-weight and premature infants may be better adjusted because they receive specialised preparation from nursing staff prior to discharge from the NICU.

1.4.1 Immediate Consequences of Premature Birth

Curran et al. (1997) describe the response of parents to their premature infants as an 'acute emotional disorder'. For most parents the impact of a premature birth elicits a profound range of emotions, from the initial fears regarding medical complications, conditions and subsequent mortality (Miles, 1989), to concerns regarding the infant's later development (Pearl & Donahue, 1995). Some of the problems faced by parents of premature infants, or what has been referred to as the 'crisis' of premature birth, are reflected in the study of parental depression and anxiety levels in the early weeks postpartum (Brooten et al., 1988; Affleck & Tennen, 1991).

Gennaro (1988) assessed 41 mothers of full term and 41 mothers of premature infants for anxiety and depression at one week and for 6 subsequent weeks postpartum, and reports that mothers of pre-term infants are significantly more anxious and depressed than mothers of term infants at one week, but that these differences do not persist over time. Brooten et al. (1988) assessed 47 mothers of pre-terms at discharge and at nine months on anxiety and depression. The authors report that mothers of premature infants are more anxious and depressed at discharge than at nine month follow-up. In addition, mothers whose infants are in hospital for a period of greater than 51 days are significantly less depressed at discharge than mothers whose infants had had shorter stays (Brooten et al., 1988). This study lends some empirical support to Brown et al.' (1991) suggestion that parents of premature infants may benefit from prolonged periods in the NICU.

Crnic, Greenberg, Robinson & Ragozin (1984) assessed 52 premature mother-infant pairs and 53 full term mother-infant pairs for the joint effects of stress and social support at one month and four months post-discharge. They report no group differences, and suggest that this is probably because the premature infants were out of danger by the time of the first assessment. These studies can all be criticised on the basis that they fail to assess paternal mental health *per se*, and in terms of its effect on mothers.

Jeffcoate, Humphrey & Lloyd (1979) suggest that fathers' perceptions of their infants are equal to those of mothers and fathers of full term infants. However, mothers of pre-terms report more negative perceptions of their infants than the other three groups, which the authors suggest may be because these mothers' expectations and self-esteem are more disturbed than fathers' (Jeffcoate et al., 1979). The study is limited, however, in that the researchers employed a non-standardised version of the Neonatal Perception Inventory. Jacques, Hawthorne-Amick & Richards (1983) note that in society a woman's competence is assessed by her ability to become an adequate mother, and so the perceived 'inability to grow a normal child' may be seen by many mothers as a fundamental failure.

It has consequently been suggested that fathers of premature infants may be less affected than mothers by feelings of guilt and failure following the birth (Jacques et al., 1983). In support of this Hughes and McCollum (1994) cite that 88% of a sample of 25 fathers of premature infants when interviewed attributed the prematurity to a

medical condition. Whilst only 19% of the 32 mothers interviewed believed it was due to a medical condition. For the other mothers, 44% indicated that they felt guilty in some way about having caused the premature birth, while the remaining 37% reported they didn't know what had caused the birth to be premature (Hughes & McCollum, 1994). This may be evidence of fathers distancing themselves from any sense of blame or personal responsibility for the premature birth, while mothers may feel a more acute sense of personal failure or blame, and therefore greater emotional distress.

A number of studies have considered the impact of the intensive care hospital environment on premature infants and their parents (Levy-Shiff et al., 1989; Affleck, Tennen & Rowe, 1990; Miles, Funk & Kasper, 1992). Sources of stress for parents in the NICU include separation from their new born infant (Seashore, Leifer, Barnett & Leiderman, 1973), reluctance to become attached to a child who might not survive (Parke & Anderson, 1987), delay in carrying out natural care-giving functions (Shellabarger & Thompson, 1993), and the inability of the infant to interact with their parents in a normal way (Perehudoff, 1990). Miles et al. (1992) assessed 23 mother-father pairs with premature infants in the NICU and report that mothers and fathers do not differ in anxiety levels, and the sights and sounds of the NICU are found to be only moderately stressful for mothers and fathers. Miles et al. (1992) suggest this may be because the public no longer finds the NICU intimidating because of familiarity through television or personal experiences. Studies such as these are useful in their attempt to compare the NICU experiences of both mothers and fathers.

Miles, Carter, Spicher & Hassanein (1984) report that 37 mother-father dyads recently discharged from a NICU find the experience equally stressful. However, mothers report the crying, demanding child and the inability to touch their child and to protect them from pain a greater source of stress than did fathers. On the other hand, fathers find the inability to visit their child at will and the sense of helplessness about how best to help the child more stressful than mothers. Miles et al. (1984) conclude that information on the perceptions of both parents in the NICU is crucial to the development of roles for health professionals in supporting both the sick child and its parents. However, a number of researchers conclude that the differences between mothers' and fathers' perceptions in the NICU still remain to be explored in sufficient depth (Hughes & McCollum, 1994).

It is also suggested that fathers, but not mothers, focus on physiological data or laboratory values in the NICU as a way of fending off emotional attachment to their babies before knowing anything certain about their survival (Yogman, 1987). However, studies report that fathers do not report developing an attachment to their premature infants in the NICU significantly later than do mothers (Jeffcoate et al., 1979). Fathers do seem to be less intimidated by equipment in the NICU than mothers (Miles, 1989), however, and it is suggested that they sometimes appear to form a relationship with their child via an interest in the monitoring and life-support equipment (Richards, 1983). This may help fathers to cope with prolonged periods spent with their infants in the NICU, but may serve to alienate them from their spouses.

Raeside (1997) views the parent in the NICU as a 'biosocial' being, striving for homeostasis by attempting to balance the constant interaction between internal and external environments. Visits and participation in infant care have come to be considered essential to the well-being of the infant and the family (Raeside, 1997). This in itself may place additional strain and social pressure upon parents who are unable, for emotional or practical reasons, to provide such major input. Yu, Jamieson & Astbury (1981) conclude that staff in the NICU need to regard the whole family group as being in need of intensive care if parents are to meet the emotional challenges of having a premature infant in intensive care.

Discharge from the NICU is a time which may bring conflicting feelings both of relief and anxiety for parents (Davis & Thoman, 1988; Drake, 1995). This ambivalence may create additional stress and conflict in their relationship (Brooten et al., 1988). Siegel et al. (1993) confirm that discharge is a further anxiety provoking event or time of 'crisis' for parents of the premature infant. They warn that if parents are not adequately prepared psychologically then this may contribute to attachment difficulties, over-protectiveness, failure to thrive, vulnerable child syndrome, emotional deprivation, and battering (Siegel et al., 1993). Miles, Davis & Shepherd (1998) summarise the impact of premature infants on parents as compounded by differences in needs and behaviour of pre-term infants, particularly at discharge home, which is a difficult time of transition as they assume sole responsibility for their infant's care.

Affleck et al. (1990) studied 50 mother-father pairs at discharge from the NICU and report that mothers perceive more personal control, mobilise more social support and use more escapist strategies than fathers, who report less emotional disturbance. The authors conclude that fathers are less distressed by the crisis of newborn intensive care, and for many fathers their role may exist in focusing their attention on supporting their spouse (Affleck et al., 1990).

From a summary of the research to date, parental anxiety and low mood are seen to decrease from birth to discharge of the premature infant from the NICU. However, for the premature infant and its parents more potential problems lie ahead.

1.4.2 Short-Term Consequences of Premature Birth

Seashore et al. (1973) note that restricting early mother-infant interaction influences subsequent maternal performance, as assessed by observational ratings by trained observers. The authors caution that the negative effect of early separation on maternal self-confidence may lead to 'incompetent mothering'. Belsky (1979) observed 51 father-infant dyads at 24-72 hours and at one month old. He reports that fathers who hold their infants in the first hour of life demonstrate more non-verbal behaviour toward their infants during observation at one month than those who do not have this early contact. Rodholm (1981) measured the potential impact of premature birth on later interaction patterns by comparing 16 fathers of Caesarean births, who were allowed to handle their new born infants immediately after delivery, to 29 fathers of Caesareans who were not. The author reports that during observed play at three

months the contact group show more touching behaviour with their infants than the non-contact group (Rodholm, 1981). The impact of the findings in these studies for parents of premature infants may be far-reaching, as predominantly there is a higher likelihood that they are unable to experience direct physical contact with their new born infant in the first few hours after birth.

As regards the 'attachment' status of this group, however, Gyler, Dudley, Blinkhorn & Barnett (1993) describe an apparent 'robustness' in a group that is generally perceived as highly vulnerable. Mothers and fathers of premature infants are not found to be any less attached to their children than parents of full term infants, despite prolonged periods of separation at birth (Gyler et al., 1993). In addition, Jeffcoate et al. (1979) report that fathers of pre-terms 'bond' with their infant at the same time as fathers of full term infants. Whilst it has been reported that mothers of premature infants may take longer to bond than a comparison group of full term mothers (Jeffcoate et al., 1979). However, the groups for comparison were small ($N = 17$) in this study, which makes generalisation of findings more difficult.

Subsequent studies have shown that parent-infant separation in the postpartum period is associated with problems in later family functioning. McCain (1990) assessed 55 mothers and 27 fathers of premature infants at two to four years old, and suggests that longer neonatal hospitalisations are associated with poorer family functioning for mothers specifically, but not for fathers.

Tobey & Schraeder (1990) observed 39 very low birth weight prematurely-born children and their mothers, identified as primary caretakers, at five years old and report that more behaviour problems were found amongst the very low birth weight infants compared to normal birth weight controls. The authors do not clarify, however, whether the normal birth weight infants were also born healthy and full term.

1.4.3 Parental Interaction Patterns Following Premature Birth

Research into the interactional experiences of parents and their premature infants in the NICU and beyond is vast and conflicting. Some studies have reported little or no difference between mothers' and fathers' self-reported experiences (Lozoff, Brittenham & Trause, 1977; Yu et al., 1981). However, Yogman (1987) followed 10 premature and 10 full term infants at one, three, five, nine and 18 months. From his observations of father-infant interactions, Yogman (1987) reports that mothers in both groups perform more care-giving than fathers, whilst fathers of premature infants do more care-giving at each age than fathers of full-terms. In addition, fathers of pre-terms display 'less arousing play' than fathers of full-terms, which supports the view that fathers of premature infants do not attempt to over-stimulate their infants, unlike pre-term mothers. In Yogman's (1987) study, as with others reviewed, the group sizes were also very small, with just 10 in each, which makes it impossible to draw firm conclusions.

A number of studies have suggested that mothers of premature infants over-stimulate their infants by comparison to mothers of full term infants. Field (1977) observed 12 premature infants and 12 full term infants interacting with their mothers at three and a half months after their expected birth date. The author reports that although mothers of premature infants are more active, they receive less reciprocal infant gaze. Field (1977) suggests a 'compensatory' response for their separation on the part of the mothers, perceiving the infants' response as aversive to their mothers' attempts at over-stimulation. It is proposed, in fact, that mothers of premature infants 'try too hard' to engage their infants. This appears to be counterproductive as the infants respond with gaze aversion and irritability. In contrast, fathers relate in similar ways to both normal and high-risk infants (Field, 1977). In Field's (1977) study fathers are reportedly aware of the differences in attentiveness and responsivity of their high-risk infants, but do not appear as disturbed by this as are mothers.

Levy-Shiff et al. (1989) also identify compensatory interaction responses in both mothers and fathers of premature infants following discharge from the NICU. In their study 38 mother-father pairs and their premature infants were observed during the initial period at home. These observations and self-report parental perception of their infants were compared to a group of parents of full term infants. The results suggest that mothers in both groups are involved in more care-giving and holding than fathers, but that fathers of premature infants engage in more holding and care-giving than fathers of full term infants. Overall, mothers and fathers of premature infants engage in more playing and stimulating activities than mothers and fathers of controls. Levy-

Shiff and colleagues conclude that a heightened level of stimulation for parents of prematurely born infants is an adaptive and compensatory response, which may be mediated by parental anxiety for the well-being and future development of their infants (Levy-Shiff et al., 1989). So it appears that fathers as well as mothers may be attempting to 'compensate' in some way for their infants' poor responsivity.

Davis & Thoman (1988) observed 10 mothers of premature infants and 29 mothers of full term infants in their homes at two, three, four and five weeks post-term. They report, in stark contrast to the findings of Levy-Shiff and colleagues (Levy-Shiff et al., 1989), that mothers of pre-terms leave their infants alone more, talk to them less, look at their infants less and hold them less than mothers of full-terms. The authors suggest that these differences in maternal behaviours may be in response to infant cues and therefore appropriate for their premature infants, but they caution that these lower levels of stimulation may not continue to be appropriate as the infants become older (Davis & Thoman, 1988).

In comparing 59 parents of full term and premature infants' interactions in teaching tasks in the home setting at three months, Harrison (1990) also notes that mother-infant scores are lower for pre-term dyads, whilst father-infant interactions are lower for term dyads. He concludes that mothers are more likely to show stereotypes of pre-term infant behaviour than fathers. This may be support for what has been referred to as 'prematurity stereotyping' (Stern & Karraker, 1990) in parents of premature infants at various stages of development. Stern & Karraker (1990) define prematurity

stereotyping as 'a set of biased beliefs about infants who are identified as having been born prematurely' (p. 3). This may result in an over-protection or an under-estimation of the premature infant by the parents.

A number of differences have been noted between the behaviour of mothers and fathers following pre-term birth due simply to practical constraints (Zeskind & Iacino, 1984). For example, the mother may be receiving medical attention herself and the father may be required to develop a primary role in decision making because the infant is transferred to a different hospital or because of the physical incapacity of the mother (Paludetto, Faggiano-Perfetto, Asprea, De Curtis & Margara-Paludetto, 1981). However, the literature suggests that fathers are still less involved than mothers in the NICU (Prudhoe & Peters, 1995).

Paludetto et al. (1981) carried out semi-structured interviews with 30 mothers and fathers of premature infants who had spent more than 10 days in the NICU. They report that allowing parents unrestricted access to the unit stimulates fathers' interest in the child, although the father remained less involved with the infant than the mother. In contrast, a study of 20 mother-father pairs in the NICU a fortnight after the birth were allowed to determine the amount of contact they had with their infants (Yu et al., 1981). The authors report that both parents choose an equally high level of involvement despite the associated anxiety.

Barnard, Hammond, Sumner, Kang, Johnson-Crowley, Snyder, Spietz, Blackburn, Brandt & Magyary (1987) suggest a significant increase in levels of interaction between mothers and their premature infants over the first seven months following birth. Barnard et al. (1987) propose this is because fathers are less involved by this time. Perhaps, therefore, mothers are more confident in assuming the primary caregiving and interaction role, without the threat of direct interference from their spouse. Perhaps, also there is by now less direct contact with and intervention from a range of medical and health professionals.

A number of researchers have begun to examine more closely the fathers' interactions with his premature infant (Levy-Shiff, Hoffman, Mogilner, Levinger & Mogilner, 1990; Yogman, Kindlon & Earls, 1995), and the results are contrasting. Harrison (1990) observes that at three months post-discharge fathers of pre-terms have more positive interactions with their infants than fathers of full-terms. Brown et al. (1991) report that one month post-discharge 18 fathers of premature infants perform more infant care activities and are better adjusted to fatherhood than 18 fathers of full term healthy infants. However, by three months post-discharge the groups do not differ (Brown et al., 1991). They suggest that the fathers of new born infants with health problems may be better prepared for the transition to parenthood as they receive specialist input from nursing staff prior to their infant's discharge (Brown et al., 1991).

Thus, increased paternal involvement with premature infants may stem from fathers assuming a more active role than mothers in the immediate postpartum period in the NICU. This may then lead to less typically male participation in child care, which may then be a source of additional strain in their relationship with their spouse. Marton, Minde & Perrota (1981) indicate that fathers of premature infants have a recognised role as 'intermediary' between the pre-term nursery and the mother and that the NICU is an unfamiliar or 'homogenising' environment where social stereotypes do not apply and where both parents have the opportunity to interact with their infant whilst carrying out parental tasks voluntarily. In support of this is the fact that throughout the hospitalisation period mothers and fathers show very similar patterns of interactions with their premature infants (Marton et al., 1981).

Parents of premature infants rate 'alterations in their roles', however, as one of the most stressful interactional experiences of the NICU. Miles, Funk & Kasper (1991) interviewed 23 mother-father pairs with premature infants in the NICU and the researchers report alterations in the parental role as the most stressful aspect for both parents, but more so for mothers. For example, a common theme in the NICU is that of 'rivalry' toward staff, or a feeling that the baby is being 'taken over' (Bender & Swan-Parente, 1983). This may represent a threat to perceived role acquisition. Miles & Frauman (1993) point out that mothers' and nurses' care of premature infants involves overlapping roles and responsibilities, and therefore there is continual negotiation of roles (Miles & Frauman, 1993). It is also observed that parents of premature infants can tend to delay the transition to the care-giving role and adjust to

playing 'second fiddle' to highly trained medical staff for weeks or months after birth (O'Brien, Soliday & McCluskey-Fawcett, 1995).

1.4.4 Summary

The parents of the premature infant may be at increased risk of experiencing emotional problems in the early postpartum period (Gennaro, 1988). In addition, there are reported gender differences in the interactional and coping experiences of mothers and fathers with their premature infants (Yogman, 1987). There is, however, little in the literature on the application of role theory to the experience of premature birth. There may be a need for more research on parental roles and role conflict in the NICU. For example, on the role of nurses promoting, and at times hindering, interactions and attachments between parents and their premature infants.

1.5 Dyadic Adjustment Following Premature Birth

From what has been reviewed thus far, it appears that the parents of the premature infant experience increased stress during their child's hospitalisation period (Miles, 1989). In addition, it appears that gender differences exist in mothers' and fathers' initial emotional reactions to the 'crisis' of premature birth (Miles et al., 1984), and later in their behavioural adaptations (Cowan & Cowan, 1987). Which lead one to question how these often stark differences impact on the parents' relationship with one another, or rather, their 'dyadic adjustment'.

From a review of the research examining the impact of premature birth on the parents' relationship per se, the evidence to date is sparse and contrasting. There is a paucity of research examining the parents' relationship exclusively, and of these there is a failure to employ standardised measures of marital adjustment. It has been suggested, however, that 'separation in the new born period does have an effect, albeit non-specific, by acting through the family as a stress that creates disequilibrium in the nuclear family structure' (Leiderman & Seashore, 1975, p. 59). Gennaro, Grisemer & Musci (1992) interviewed 60 mothers of pre-term low birth weight infants on their expected and actual life-style changes, which included their level of interaction with their partner. The authors report that between 23-32% of the mothers experience some negative change in their relationships with significant others, as assessed by raters from clinical interviews, due predominantly to spending less time with them and increased fatigue (Gennaro et al., 1992).

It is noted that families with premature infants report higher levels of marital conflict and divorce (Lamb & Billings, 1997). In Leifer, Leiderman, Barnett & Williams' (1972) study, families of premature infants have been reported to be at an increased risk for divorce and relinquishment of the infant's custody, compared to parents of healthy full term infants. In the two-year period following hospital discharge, marital discord, often leading to separation and divorce, is reportedly higher for families of premature infants than parents of healthy full-terms (Leiderman, 1971). High-risk births are also described as a cause of 'sexual impotence', creating even greater relationship problems for couples (Hynan, 1991).

In contrast, Harrison & Magill-Evans (1996) observed 54 mothers and fathers of full term infants and 49 mothers and fathers of premature infants in home interactions at three and 12 months. In addition they assessed levels of parenting stress and dyadic adjustment using the DAS (Spanier, 1976). Their findings mirror those of earlier studies in that parents of pre-terms have lower interaction scores than parents of full term infants. However, no differences are found between the two groups on levels of stress or dyadic adjustment (Harrison & Magill-Evans, 1996). However, the timings of assessments in this study have been criticised as neglecting the immediate postpartum period. In addition, 70% of Affleck & Tennen's (1991) sample of mothers and fathers interviewed at discharge from the NICU state that their marriage had moderately or strongly improved.

1.6 Methodological Issues Arising from the Literature Review

The research literature examining the impact of premature and full term birth on parents present conflicting results. This may be due in part to differing conceptualisations of stress, the wide variety of measures used to determine stress reactions (e.g. standardised questionnaires vs. investigator-developed tools), the data points at which stress was measured and the range of populations studied (e.g. premature vs. low birthweight). In addition, there are confounding problems in assessing the impact of prematurity on family problems directly, since associated low birth weight is often related to infant illness (Escobar, Littenberg & Petitti, 1991), low socio-economic status (McCormick, 1997), single parenting and early postpartum separation of mother and infant (Trause & Kramer, 1983).

In addition there are the problems created by combining data for fathers and mothers for analysis, and often fathers are compared to mothers as if the latter were the sole parental standard for such comparison (Davis & Miles, 1997). Clearly, from the small sample sizes observed in a significant number of published studies ($Ns < 20$) there are difficulties in participant recruitment with this population. Therefore qualitative methodologies may prove more fruitful in examining parental experiences in this area.

1.7 Research Questions

From an extensive review of the literature on healthy full term and pre-term birth there is much to suggest that parents with premature infants receiving intensive hospital care are under a high degree of stress and that this will impact in some way on their relationship with each other (Gennaro et al., 1992; Harrison & Magill-Evans, 1996). A common assumption in the literature, and hence across clinical settings, is that 'it is common sense that everything should be done to encourage parental visiting, encourage contact with their infant' (Wolke, 1991, p. 731), particularly for fathers. It has been suggested that this may facilitate parental coping in the NICU and the early postpartum period (Brown et al., 1991). Although there may be very good reasons for increasing the role of men in child rearing, it may not, however, be appropriate to organise neonatal care 'with the intent of altering the sexual division of labour within families' (Richards, 1983, p. 41).

From a review of past research a simple question remains unanswered: do mothers and fathers of premature infants experience greater marital stress, or poorer marital

adjustment, than mothers and fathers of healthy full term infants during the first few weeks postpartum? An additional question would be: is the increased involvement of fathers, openly encouraged in the premature baby unit, a source of role conflict and marital stress for mothers of premature infants? For example, is there resentment or jealousy from mothers toward fathers as a result of their increased involvement with their premature infants?

Where fathers are routinely encouraged to be more involved with their babies than they would be normally, does this increased paternal involvement make mothers feel 'pushed out' and compound further their feelings of failure and guilt? Also does this have implications for care and clinical practice on special care units? Should parental involvement in the NICU be handled more sensitively by staff, with greater regard for inter-relationship roles and dyadic sensitivities?

1.8 Hypotheses

1. Mothers and fathers of premature infants will report different levels of dyadic adjustment to the mothers and fathers of full term infants at one to two weeks postpartum, during the hospitalisation period for the premature infants.

2. Mothers and fathers of premature infants will report similar levels of dyadic adjustment to the mothers and fathers of full term infants at six to eight weeks post-discharge.

3. Mothers of premature infants will report different levels of dyadic adjustment to fathers of premature infants at one to two weeks postpartum.

CHAPTER 2 - METHOD

2.1 Design

The method combines quantitative and qualitative approaches in a two-step design. A mixed design with repeated measures is used for the quantitative analyses of dyadic adjustment scores for the two groups of parents of premature and parents of full term infants. At Time One, independent-group t-tests are used to calculate relationships between variables. At Time Two, a within-groups repeated-measures ANOVA is used. Semi-structured interviews are carried out with the parents of premature infants at Time Two. Qualitative data are thematically analysed to illustrate and expand upon quantitative findings.

2.2 Participants

2.2.1 Recruitment

Participants were recruited from four settings across two hospitals in the Forth Valley Health Board area. These are a 15-cot Special Care Baby Unit (SCBU), a 15-cot Neonatal Intensive Care Unit (NICU) and two Post Natal wards. New admissions to the SCBU and NICU were checked up to five times weekly by visits to the units and telephone calls to the charge nurse on each unit. Participants were recruited from the Post Natal wards during twice-weekly visits to both settings.

2.2.2 Sample Size

A statistical power analysis was calculated to estimate the appropriate sample size for parametric analyses (Cohen, 1988;1992). The intended sample size for statistical comparison, using t-tests and ANOVAs, among mothers of premature infants, fathers



of premature infants, mothers of healthy full term infants and fathers of healthy full term infants is 16 participants in each group, with medium effect sizes and an alpha of .05 (Cohen, 1992).

For the qualitative analysis it is difficult to determine the sample size in advance (Barker, Pistrang & Elliott, 1994). However, Barker et al. (1994) suggest that, with clearly defined topic areas, samples of between five and 10 are adequate.

2.2.3 Sample Characteristics

The sample is restricted to married or cohabiting mothers and fathers of hospital-born neonates, single parents being excluded.

The premature infants are of less than 35 weeks gestation, with a birth weight of less than 2500 grams, and a period of hospitalisation of greater than seven days. Exclusion criteria for premature infants includes those with a terminal prognosis, multiple births of triplets or more and infants with major identifiable abnormalities, malformation, or serious medical complications (e.g. convulsions, sepsis, gross signs of brain damage, genetic anomalies, cardiac problems).

The full term infants are of at least 37 weeks gestation, healthy, with a hospitalisation period for mother and baby of less than seven days. The full term sample also includes caesarean births with a period of hospitalisation of up to seven days, but with no additional complications.

Basic demographic data for the sample were collected and include ethnic origin, gender, age, length of education, marital status, length of current relationship, and number of additional children.

2.3 Measures

2.3.1 *Dyadic Adjustment*

From a review of the available measures of marital distress two brief self-report inventories emerged as suited to application with this subject population. The Golombok Rust Inventory of Marital State (GRIMS) (Rust, Bennun, Crowe & Golombok, 1988) is a 28-item, psychometrically constructed single scale self-report assessment of marital discord with good reliability and validity covering dimensions of satisfaction, communication, shared interests, trust and respect. The accompanying Golombok Rust Inventory of Sexual Satisfaction (GRISS) (Rust & Golombok, 1986) provides an assessment of the sexual relationship and is an optional addition to the assessment process. The GRIMS developed from criticism of the currently available measures and their limitations for use in UK research studies.

The US-developed Dyadic Adjustment Scale (DAS) (Spanier, 1976), for example, is criticised because of its culture bias in the question format (Walker, Manion, Cloutier & Johnson, 1992), although it remains probably the most widely used measure of relationship adjustment to date. 'Dyadic Adjustment' is defined by Spanier & Cole (1976) as a process, the outcome of which is determined by the degree of troublesome dyadic differences, interpersonal tensions and personal anxiety, dyadic

satisfaction, dyadic cohesion and consensus on matters of importance to dyadic functioning.

The DAS is a 32-item multidimensional self-report measure of marital distress, and responses are chosen from a five- or six-point Likert scale (Spanier, 1976). Items measure satisfaction with the relationship, cohesion, consensus, and the expression of affection, and provide four corresponding sub-scale scores. A psychometric evaluation of the DAS by Sharpley & Cross (1982) suggests a clinical distress cut-off score of below 108. Similarly, Walker et al.'s (1992) findings from a study of marital distress in couples with chronically ill children suggest a cut-off for distress of 109.7.

The final decision regarding selection of measures was, however, largely influenced by the Forth Valley Health Board Ethics of Research Committee who rejected the GRIMS (Rust et al., 1988) on the grounds of the 'intrusive' nature of the questions, that may 'cause distress' for the parents concerned (see Appendix 1 for copy of Ethics Committee correspondence). The DAS (Spanier, 1976) was proposed as an alternative measure of marital distress, but it was several months before the committee finally sanctioned its use.

In retrospect, the wording of several items on the DAS was reported to be inappropriate and confusing by some ward staff and consequently several potential participants. The use of the term 'mate', for example, to refer to a partner or spouse was criticised by some parents. This response to the wording of the DAS may go

some way to explaining the low response rate in the study overall as it may have influenced parents' decision to participate.

Test-retest reliability above .90 has been shown for the DAS total score (Eddy et al., 1991). The DAS has high internal consistency (.96, Cronbach's alpha) and discriminates between distressed and non-distressed couples in general and clinical samples (Eddy et al., 1991). The total scale score on the DAS is considered the most meaningful indicator for researchers and therapists, however the four sub-scales may provide useful information as to the origins of problems (Spanier & Filsinger, 1983).

Criticisms of the DAS highlight an inappropriate weighting of scores (Norton, 1983), and a moderate correlation with social desirability bias (Walker et al., 1992). An abbreviated (7-item) DAS has been shown to validly differentiate between individuals with positive and negative perceptions of their relationship. However, the full-scale 32-item original version of the measure enables deeper analysis of individual and couple responses for research and therapy (Sharpley & Rogers, 1984).

In addition, the DAS is criticised on the basis that it may not contain four conceptually distinct or valid sub-scales (Sabatelli, 1988). Despite some criticism, a number of recent published studies report all four sub-scale scores of the DAS and discuss the significance and usefulness of these scale scores in some detail (Zelkowitz & Milet, 1996; Walker et al., 1992). In summary, the DAS is considered to be based on a sound conceptual foundation (Sabatelli, 1988) and regarded as an adequate

measure of perceived marital quality (Sabourin et al., 1990) (see Appendix 2 for copy of DAS).

2.3.2 Interview Schedule

Semi-structured interviews were designed for use with mothers and fathers of premature infants. The structural framework for the interview arose from the Role Theory literature. It was structured around a number of themes that emerged from a review of the role theory literature. The interview was piloted on several respondents and revised accordingly. Individuals rated their relationship prior to the pregnancy and at the present time, at the start and end of the interview on a 10-point scale. They were questioned on the sources of dyadic stress or conflict in the NICU and SCBU, and post-discharge. Questions raised included conflict over or feelings of exclusion from infant care and decision making in the NICU, and role division both in the NICU and home settings (see Appendix 3 for copy of Interview Schedule).

2.4 Procedure

The study was approved by the Forth Valley Health Board Ethics of Research Committee, February 1999, following submission of application in November 1998.

2.4.1 Time One

Participants were recruited following the birth of their infant whilst on the hospital wards prior to discharge home.

On the Post Natal wards the mother was approached by the present author within 48 hours of the infant birth to participate in the study. The mothers were requested to complete and return the questionnaire pack within the next 14 days. They were asked to inform their partners of the study and pass on a questionnaire pack for fathers to complete and return in an enclosed stamped addressed envelope.

In the NICU and SCBU both parents were approached by the present author or the Unit Charge Nurse within two weeks of the premature birth, once their infant was judged by Unit staff to be in a stable condition, and to allow the parents to become acclimatised to the hospital environment. They were requested to return the completed questionnaire pack as soon as possible.

All mothers and fathers approached were provided with an information sheet outlining the current study and contact details for the researcher. The voluntary nature of the study was emphasised and confidentiality was assured. The participants were requested to complete a copy of the 32-item DAS, a demographics information sheet, and a consent form and to return all three completed forms in an enclosed stamped addressed envelope (see Appendix 4 for copies of participant forms for completion). All participants were instructed to complete and return the questionnaires independently and not to compare responses with their partner.

A postal reminder was sent to all mothers and fathers who had agreed to participate in the study but who had failed to return the questionnaire within one week. They were

sent a reminder letter, another copy of the questionnaire pack and a large stamped addressed envelope for return of all forms completed or blank.

2.4.2 Time Two

The DAS was re-administered to mothers and fathers of full term infants by postal return six to eight weeks post-discharge. The DAS was re-administered to mothers and fathers of premature infants at an interview appointment in their own homes six to eight weeks post-discharge. In addition, the researcher carried out 20-30 minute semi-structured interviews with mothers and fathers of premature infants individually in their own homes. The interviews were transcribed and their content analysed.

2.5 Data Analysis

2.5.1 Statistical Analysis

Quantitative data was analysed using SPSS version 9.0 for Windows. Independent-group t-tests were calculated to compare mean total and sub-scale scores on the DAS at Time One and Time Two for the two groups of parents of full term and parents of premature infants. A within-groups repeated-measures Analysis of Variance compared interaction effects over time for the two groups of full term and premature parents. Non-parametric analyses were carried out with those samples with $N < 10$.

2.5.2 Qualitative Analysis

Qualitative data was analysed according to a literature-driven thematic analysis (Boyatzis, 1998). Interviews were tape-recorded and transcribed. Each of the

interview transcripts were read and re-read and passages from the transcripts were sorted into categories based on a list of significant topics, from the Role Theory literature. The emerging themes from the analysis of each transcript were compared with a list of topics selected from the existing theoretical accounts of parental responses following premature birth, such as conflict in parental gender roles, and role boundaries between parents in the NICU. The final five categories that were taken from the existing literature were all related to themes which emerged from all ten of the parent transcripts. The categories were Role Conflict, Shared Roles, Traditional Gender Roles, Role Expectations and Role Competence.

CHAPTER 3 - RESULTS

3.1 Sample Characteristics

A sample of 216 mothers and fathers of new born infants across four wards in two hospitals in the Forth Valley area were approached and agreed to participate in the research study. Of this total sample approached 164 were parents of full term infants and 52 were parents of premature infants. A total of 70 parents returned the questionnaire package, an overall response rate of 32%. The participants in the current study at Time One were a total of 56 mothers and fathers of full term infants and a total of 14 mothers and fathers of premature infants. The response rates for the two groups were 34% and 27% respectively. At this Time One assessment 41 mothers and 15 fathers of full term infants and nine mothers and five fathers of pre-term infants responded.

The response rates at Time Two were 29 out of the original 56 respondents for the parents of full term infants (52%) and 12 out of the original 14 respondents for the parents of premature infants (86%). At Time Two 17 full term mothers responded, 12 full term fathers responded, eight mothers of pre-terms responded, and four fathers of pre-terms. Only four of the pre-term group and four of the full term group were mother-father pairs in the same relationship. The full term and premature groups were not matched for comparison.

For the qualitative semi-structured interviews five fathers and five mothers of premature infants agreed to participate. They were all interviewed individually in their own homes.

Table 3.1 shows the participant numbers at Time One and Time Two for the parents of premature and parents of full term infants.

Table 3.1: Participant Numbers at One to Two Weeks Postpartum and Six to Eight Weeks Post-Discharge

	1-2 WEEKS POSTPARTUM		6-8 WEEKS POST-DISCHARGE		INTERVIEW (6-8) WEEKS	
	Mothers	Fathers	Mothers	Fathers	Mothers	Fathers
Full Term	41	15	17	12	-	-
Pre-Term	9	5	8	4	5	5

The overall response rate and the diminished return rate at Time Two obviously limit the generalisability of the findings. Thus the findings in the present study must be treated with some caution.

3.1.1 Normality of the Data

All data were checked for assumptions of normality and homogeneity of variance in order to determine the appropriateness of parametric analyses. Unless otherwise stated Levene's test for equality of variances is non-significant throughout. As participant numbers are small, particularly for the pre-term group, they were examined for skewness and kurtosis on the variables measured (see Appendix 5). Although, with a small sample size a certain amount of skew and kurtosis may be considered inevitable. The use of t-test statistics may be considered appropriate, however the findings must be interpreted with caution, due to these small sample sizes, as Cohen (1992) recommends a sample size of 16 per group for the use of the t-statistic. The

findings from sets of multiple t-tests must also be interpreted with caution, as this may invalidate the results. To test the third hypothesis with sample sizes of <10, non-parametric statistics will be used.

3.1.2 Levels of Significance

Throughout the analysis, two tailed significance tests are used to examine the experimental hypotheses. A significance level of .05 is used to determine whether the hypotheses are supported.

3.1.3 Demographic Data

Basic demographic data were gathered for the sample during the Time One assessment. Table 3.1.3a shows the demographic data for the two participant groups. Means and SDs are presented on a range of variables for the parents of premature and full term infants. Independent group t-tests were run to test for significant differences between the two groups at Time One for the variables of age, length of education in years and length of current relationship in years. There were no significant differences between the groups in terms of age ($t = 1.142$, $df = 68$, $p = NS$), education in years ($t = .041$, $df = 68$, $p = NS$) and relationship in years ($t = .044$, $df = 68$, $p = NS$). Chi-squared tests confirmed that there were no significant differences between the groups at Time One on the variables of gender ($\chi^2 = .438$, $df = 1$, $p = NS$), first child status ($\chi^2 = .521$, $df = 1$, $p = NS$) and marital status ($\chi^2 = .175$, $df = 1$, $p = NS$).

Table 3.1.3a: Demographic Data for the Parents of Premature and Full Term Infants

	PRE-TERM PARENTS (N=14)	FULL TERM PARENTS (N=56)
Mean Age (SD)	31.43 (3.72)	29.68 (5.41)
Mean Education in Years (SD)	13.57 (2.95)	13.54 (2.91)
Mean Relationship in Years (SD)	7.93 (3.67)	7.98 (4.21)
Ethnic Origin: White - European	14 (100%)	56 (100%)
Gender: Female	9 (64.3%)	41 (73.2%)
Male	5 (35.7%)	15 (26.8%)
No. of Children: 1 st Child	9 (64.3%)	30 (53.6%)
1 Additional Child	4 (28.6%)	16 (28.6%)
2 Additional Children	1 (7.1%)	9 (16.1%)
3 Additional Children	0 (0%)	1 (1.8%)
Marital Status: Married	10 (71.4%)	43 (76.8%)
Cohabiting	4 (28.6%)	13 (23.2%)

The effects of sample attrition on the characteristics of the pre-term and full term parent groups at Time Two were examined. Table 3.1.3b shows the sample characteristics of the pre-term and full term groups at Time One and Time Two.

As shown in table 3.1.3b there appear to be no obvious differences between the groups over the two time points. This was tested and the changes were indeed found to be non-significant. Independent group t-tests were run to test for significant differences between the pre-term and full-term parent groups at Time Two on the variables of age, length of education in years and length of current relationship in years. There were no significant differences between the groups in terms of age ($t = .607$, $df = 39$, $p = NS$), education in years ($t = .526$, $df = 39$, $p = NS$) and relationship

in years ($t = .015$, $df = 39$, $p = NS$). Chi-squared tests confirmed that there were no significant differences between the groups on the variables of gender ($\chi^2 = .231$, $df = 1$, $p = NS$), first child status ($\chi^2 = 2.172$, $df = 1$, $p = NS$) and marital status ($\chi^2 = .003$, $df = 1$, $p = NS$).

Table 3.1.3b: Sample Characteristics at One to Two Weeks Postpartum and Six to Eight Weeks Post-Discharge

	1-2 WEEKS POSTPARTUM		6-8 WEEKS POST- DISCHARGE	
	Pre-Term	Full Term	Pre-Term	Full Term
Number	14	56	12	29
Gender:				
Female	9 (64.3%)	41 (73.2%)	8 (66.7%)	17 (62.1%)
Male	5 (35.7%)	15 (26.8%)	4 (33.3%)	12 (40%)
Mean Age	31.43 (3.72)	29.68 (5.41)	31.25 (3.72)	30.07 (6.27)
Mean Education in Years (SD)	13.57 (2.95)	13.54 (2.91)	13.75 (3.11)	13.17 (3.23)
Mean Relationship in Years (SD)	7.93 (3.67)	7.98 (4.21)	7.92 (3.96)	7.90 (4.04)
First Child	9 (64.3%)	30 (53.6%)	8 (66.7%)	12 (41.38%)
Married	10 (71.4%)	43 (71.4%)	9 (75%)	22 (75.86%)

3.2 Hypothesis One - Dyadic Adjustment at Time One

According to the first hypothesis mothers and fathers of premature infants will report different levels of dyadic adjustment to mothers and fathers of full term infants in the first few weeks postpartum. Mean total and sub-scale scores on the DAS at one to two weeks postpartum are used in the analyses.

To test this first hypothesis, the mean scores for the parents of premature infants are compared with the mean scores for the parents of full term infants using an

independent groups t-test. The mean scores for these groups are also compared to Walker et al.'s (1992) proposed clinical distress cut-off score on the DAS of <109.

Figure 3.2 shows the mean total DAS scores for the two groups of parents of premature (Mean = 136.71, SD = 7.62) and full term (Mean = 107.09, SD = 9.67) infants at Time One. The mean scores for the parents of full term infants fall below the distress cut-off score of 109 (Walker et al., 1992), indicating clinically significant levels of marital distress for this group.

Figure 3.2: Mean Total Score on DAS at One to Two Weeks Postpartum for Parents of Premature (N = 14) and Full Term Infants (N = 56)

(a high score indicates good dyadic adjustment)

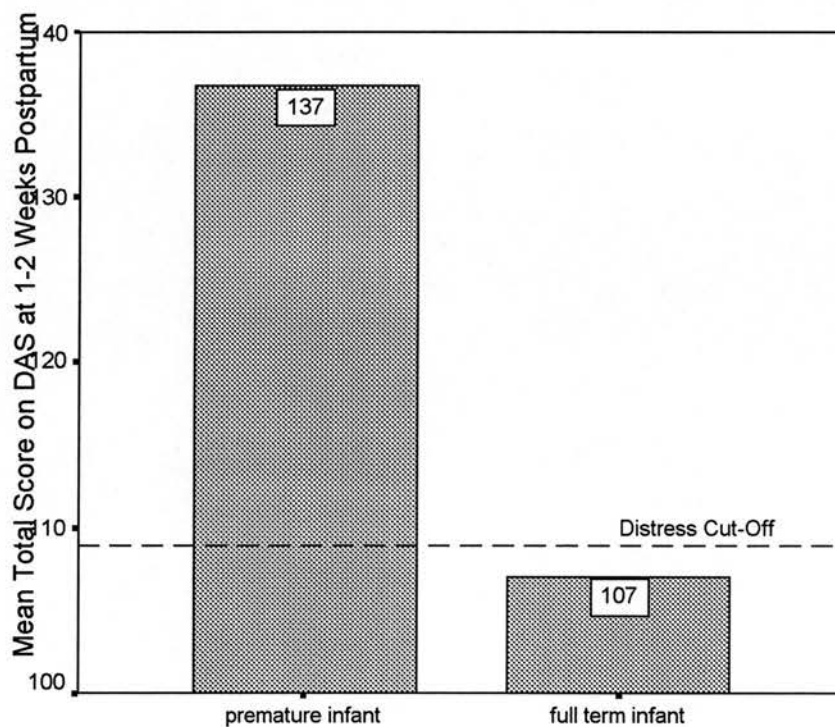


Table 3.2 shows the means, SDs, independent t-tests and significance levels between the parents of premature and full term infants on the DAS and its four component

sub-scales at Time One. On all four sub-scales and the DAS total score parents of premature infants reported significantly higher levels of dyadic adjustment than the group of parents of healthy full term infants. These findings are highly significant ($p < .001$).

Table 3.2: Mean Total and Sub-Scale Scores on the DAS at One to Two Weeks Postpartum for Parents of Premature and Full Term Infants

	PRE-TERM MEAN**(SD) (N = 14)	FULL TERM MEAN**(SD) (N = 56)	T- VALUE	SIGNIFICANCE LEVEL
DAS Total Score at 1-2 Weeks	136.71 (7.62)	107.09 (9.67)	10.650*	$p < .001$
Consensus Sub-scale Score at 1-2 Weeks	58.50 (4.16)	47.09 (4.98)	7.892*	$p < .001$
Affectional Expression Sub-scale Score at 1-2 Weeks	11.36 (.93)	8.41 (1.53)	6.853*	$p < .001$
Satisfaction Sub-scale Score at 1-2 Weeks	45.79 (2.39)	38.02 (3.49)	7.852*	$p < .001$
Cohesion Sub-scale Score at 1-2 Weeks	21.07 (1.77)	13.57 (2.79)	9.561*	$p < .001$

*(df = 68)

** a high score indicates high levels of dyadic adjustment

3.3 Hypothesis Two - Dyadic Adjustment at Time Two

According to the second hypothesis, mothers and fathers of premature infants will report similar levels of dyadic adjustment at six to eight weeks post-discharge from

the NICU to the parents of full term infants. Mean scores on the DAS at six to eight weeks post-discharge are used in the analyses.

To test this second hypothesis, the mean scores for the parents of premature infants are compared with the mean scores for the parents of full term infants at Time Two using independent group t-tests. The mean scores for the groups are again compared to the previously employed distress cut-off score of 109 (Walker et al., 1992). Figure 3.3a shows the mean total DAS scores for the two groups of parents of premature (Mean = 118.17, SD = 9.64) and full term (Mean = 118.52, SD = 8.29) infants at Time Two. Both group scores at Time Two are well above the cut-off for clinically significant levels of marital distress. That is to say, both groups are reporting positive dyadic adjustment at Time Two.

Figure 3.3a: Mean Total Score on DAS at Six to Eight Weeks Post-Discharge for Parents of Premature (N = 12) and Full Term Infants (N = 29)

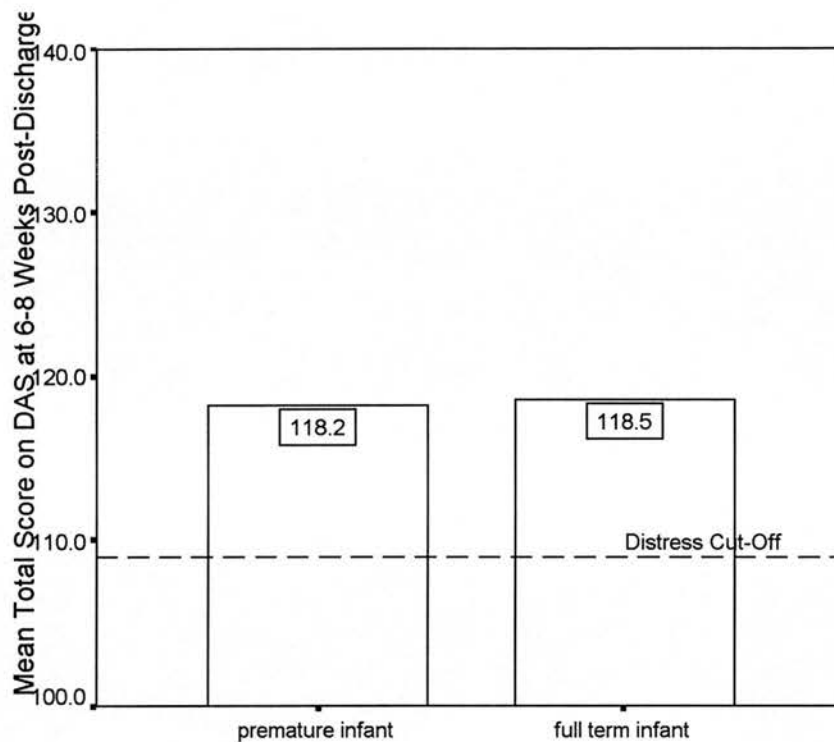


Table 3.3a shows the means, SDs, independent t-tests and significance levels between the parents of premature and full term infants on the DAS and its four component sub-scales at Time Two. On all four sub-scales and the DAS total score parents of premature infants reported similar levels of dyadic adjustment to the group of parents of healthy full term infants. These findings support the hypothesis that there would be no difference in levels of dyadic adjustment for the two groups at six to eight weeks post-discharge.

Table 3.3a: Mean Total and Sub-Scale Scores on the DAS at Six to Eight Weeks Post-Discharge for Parents of Premature and Full Term Infants

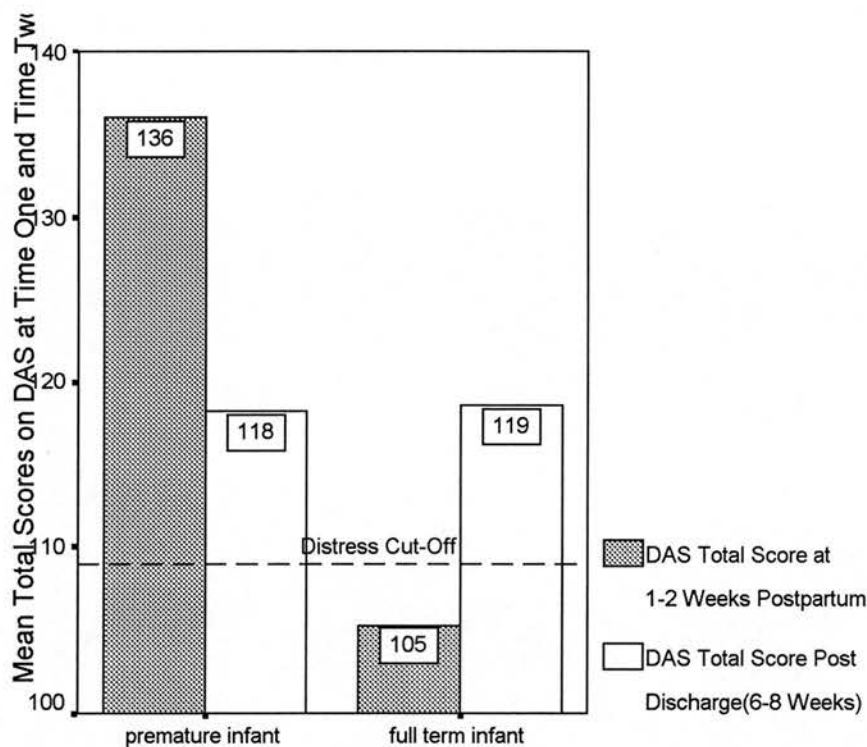
	PRE-TERM MEAN (SD) (N = 12)	FULL TERM MEAN (SD) (N = 29)	T- VALUE	SIGNIFICANCE LEVEL
DAS Total Score at 6-8 Weeks	118.17 (9.64)	118.52 (8.29)	.117*	p = NS
Consensus Sub-scale Score at 6-8 Weeks	50.33 (4.42)	51.38 (4.52)	.678*	p = NS
Affectional Expression Sub-scale Score at 6-8 Weeks	9.33 (1.78)	9.14 (1.68)	.333*	p = NS
Satisfaction Sub-scale Score at 6-8 Weeks	41.67 (2.67)	40.41 (2.56)	1.409*	p = NS
Cohesion Sub-scale Score at 6-8 Weeks	16.83 (2.82)	17.59 (2.90)	.763*	p = NS

*(df = 39)

The mean scores for both pre-term and full term groups on the DAS at Time Two were compared with the pre-term and full term group mean scores at Time One. Graph 3.3b shows a comparison of total mean scores on the DAS at Time One and Time Two for parents of premature and full term infants. Those participants who failed to respond at Time Two are excluded from this figure. However, as can be seen from the total mean scores on the DAS there was little difference between all the Time One pre-term respondents (N = 14, Mean = 136.71, SD = 7.62) and the Time Two pre-term respondents at Time One (N = 12, Mean = 136, SD = 7.63). Similarly, the Time One full term respondents' mean scores (N = 56, Mean = 107.09, SD = 9.67) appear similar to those of the Time Two full term respondents at Time One (N = 29, Mean = 105.31, SD = 9.89).

The total mean scores on the DAS for those Time One respondents who failed to respond at Time Two were 141.00 (SD = 8.49) and 109.00 (SD = 9.22) for the parents of premature infants (N = 2) and parents of full term infants (N = 27) respectively.

Figure 3.3b: Comparison of Mean Total Scores on DAS at One to Two Weeks Postpartum and Six to Eight Weeks Post-Discharge for Parents of Premature (N = 12) and Full Term Infants (N = 29)



Within-groups paired t-tests were carried out to compare the pre-term parent group mean total and sub-scale scores on the DAS at one to two weeks postpartum and six to eight weeks post-discharge. Table 3.3b shows the means, SDs, paired t-tests and significance levels for the pre-term parent group at Times One and Two.

Table 3.3b: Mean Scores on the DAS at One to Two Weeks Postpartum and Six to Eight Weeks Post-Discharge for Parents of Premature Infants

	1-2 WEEKS POSTPARTUM MEAN (SD) (N = 12)	6-8 WEEKS POST-DISCHARGE MEAN (SD) (N = 12)	T- VALUE	SIGNIFICANCE LEVEL
DAS Total Score	136 (7.63)	118.17 (9.64)	7.735*	p < .001
Consensus Sub-scale	57.92 (4.03)	50.33 (4.42)	7.237*	p < .001
Affectional Expression Sub-scale	11.25 (.97)	9.33 (1.78)	3.215*	p < .01
Satisfaction Sub-scale	45.75 (2.26)	41.67 (2.67)	4.580*	p < .001
Cohesion Sub-scale	21.08 (1.93)	16.83 (2.82)	5.745*	p < .001

* (df = 11)

The mean total and sub-scale scores on the DAS for the full term parent group at one to two weeks postpartum and six to eight weeks post-discharge were also compared using within-groups paired t-tests. Table 3.3c shows the means, SDs, paired t-tests and significance levels for the full term parent group at Times One and Two.

Table 3.3c: Mean Scores on the DAS at One to Two Weeks Postpartum and Six to Eight Weeks Post-Discharge for Parents of Full Term Infants

	1-2 WEEKS POSTPARTUM MEAN (SD) (N = 29)	6-8 WEEKS POST- DISCHARGE MEAN (SD) (N = 29)	T- VALUE	SIGNIFICANCE LEVEL
DAS Total Score	105.31 (9.89)	118.52 (8.29)	5.096*	p <.001
Consensus Sub-scale	46.07 (4.80)	51.38 (4.52)	4.213	p <.001
Affectional Expression Sub-scale	8.21 (1.57)	9.14 (1.68)	1.849	p = NS
Satisfaction Sub-scale	37.62 (3.67)	40.41 (2.56)	3.226	p <.01
Cohesion Sub-scale	13.41 (2.87)	17.59 (2.90)	5.592	p <.001

* (df = 28)

Visual examination of this data suggested that there was an interaction of pre-term and full term status over time. That is to say, it was hypothesised that time was having a different effect for the two groups. This was examined using a Repeated-Measures ANOVA.

Table 3.3d: Interaction of Time and Pre-Term Status

	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIFICANCE LEVEL
Pre-Term	3906.3	1	3906.3	46.9	p <.001
Time	90.836	1	90.836	1.2	p = NS
Pre-Term X Time	4089.0	1	4089.0	51.8	p <.001

Pre-term status as a main effect is significant, but the implications of this can only really be interpreted in the light of the interaction. The findings from the ANOVA suggest that there is a significant interaction of time and pre-term status. That is to

say, that time is having a different effect between the two groups of pre-term and full term parents. The difference on the DAS, therefore, arises from group and time interaction.

3.4 Hypothesis Three - Pre-Term Dyadic Adjustment

According to the third hypothesis, mothers of premature infants will report lower levels of dyadic adjustment than fathers of premature infants at one to two weeks postpartum. Mean scores on the DAS at one to two weeks postpartum are used in the analyses.

Unfortunately, due to small sample sizes for the parents of premature infants (mothers of premature infants = nine at Time One, eight at Time Two; fathers of premature infants = five at Time One, four at Time Two) are too small to run extensive statistical analyses. However, it may be useful to carry out simple non-parametric statistical tests to serve as a pilot for future longitudinal research.

To test this third hypothesis, the mean scores for the mothers of premature infants are compared with the mean scores for the fathers of premature infants using a Mann-Whitney U Test.

The mean score at Time One for the mothers of premature infants ($N = 9$) was 138.44 ($SD = 6.04$) and for the fathers of premature infants ($N = 5$) the mean score at Time One was 133.6 ($SD = 9.84$). A non-parametric Mann-Whitney U test at Time One

revealed no significant difference between the two groups of mothers and fathers of premature infants ($U = 16.5$, $p = \text{NS}$).

At Time Two, the mean scores for the mothers of premature infants ($N = 8$) was 119.13 (8.49) and for the fathers of premature infants ($N = 4$) was 116.25 (12.84). A non-parametric Mann-Whitney U test at Time Two also revealed no significant difference between the two groups ($U = 14.5$, $p = \text{NS}$).

Wilcoxon matched-pairs signed rank tests were run to compare pre-term mothers' scores at Time One and Time Two and to compare pre-term fathers' scores at Time One and Time Two. Table 3.4a shows the means, SDs, Wilcoxon tests and significance levels for the pre-term mothers group at one to two weeks postpartum and six to eight weeks post-discharge.

Table 3.4a: Mean Scores on the DAS at One to Two Weeks Postpartum and Six to Eight Weeks Post-Discharge for the Mothers of Pre-Term Infants

	1-2 WEEKS POSTPARTUM MEAN (SD) (N = 8)	6-8 WEEKS POST-DISCHARGE MEAN (SD) (N = 8)	Z- VALUE	SIGNIFICANCE LEVEL
DAS Total Score	137.38 (5.48)	119.13 (8.49)	2.524	$p < .05$
Consensus Sub-scale	58.75 (3.15)	50.25 (4.03)	2.524	$p < .05$
Affectional Expression Sub-scale	11.38 (.92)	9.25 (1.91)	1.98	$p < .05$
Satisfaction Sub-scale	46 (2.14)	42.63 (2.13)	2.197	$p < .05$
Cohesion Sub-scale	21.25 (1.67)	17 (2.73)	2.552	$p < .05$

Table 3.4b shows the means, SDs, Wilcoxon tests and significance levels for the pre-term fathers group at one to two weeks postpartum and six to eight weeks post-discharge.

Table 3.4b: Mean Scores on the DAS at One to Two Weeks Postpartum and Six to Eight Weeks Post-Discharge for the Fathers of Pre-Term Infants

	1-2 WEEKS POSTPARTUM MEAN (SD) (N = 4)	6-8 WEEKS POST-DISCHARGE MEAN (SD) (N = 4)	Z- VALUE	SIGNIFICANCE LEVEL
DAS Total Score	133.25 (11.32)	116.25 (12.84)	1.826	p = NS
Consensus Sub-scale	56.25 (5.56)	50.5 (5.8)	1.841	p = NS
Affectional Expression Sub-scale	11 (1.15)	9.5 (1.73)	1.604	p = NS
Satisfaction Sub-scale	45.25 (2.75)	39.75 (2.87)	1.826	p = NS
Cohesion Sub-scale	20.75 (2.63)	16.5 (3.42)	1.826	p = NS

Unfortunately the very small sample sizes for the fathers of premature infants in particular, but the mothers and fathers of pre-terms overall, limit the present findings considerably. In addition, for the small sample of pre-term fathers (N = 4) there is also large variability of scores on the DAS. This may be an artefact of the very small sample size or there may be some other unexplored factor to account for this variance.

3.5 Thematic Analysis of Qualitative Data

The analysis of interviews with mothers and fathers of premature infants will be presented in sections covering various aspects of roles in the NICU and post-discharge in order to elucidate their experiences and the impact of this event on their interpersonal relationship. Mothers' and fathers' retrospective accounts of the period of hospitalisation in the NICU, and their accounts of their experiences following discharge to the present time, are compared and contrasted.

Quotes are provided to illustrate common themes and the full list of quotes is shown in Appendix 6. The selected quotes presented below are considered representative of parents' responses. The figures in square brackets represent the participant's randomly allocated number, and distinguish mothers from fathers.

3.5.1. Role Conflict

There was evidence of anxiety and guilt experienced by mothers of premature infants during their time in the NICU:

I think I should have realised sooner I was having contractions [mum 5]

if only I had sat down more often [mum 5]

but not for fathers:

my main concern was that mrs x didn't feel that she was thinking that it was her fault [dad 8]

Mothers reported feelings of responsibility and blame for their infant's condition, whereas fathers considered their role as providing support for their partner.

There was disagreement between mothers and fathers in terms of the optimal amount of time to be spent in the NICU with their infant. Mothers reported wanting to spend more time in the NICU with their infant:

I wanted to be there longer...mr x felt that I spent too much time [mum 3]

once mr x was back to working away I got my time to spend that I wanted to...then we got the balance when mr x was home for us to spend time together [mum 5]

but fathers reported a distancing and reduced involvement, as compared to mothers:

I didn't want to get as involved as [mrs x] from the start...didn't hold out much hope [dad 7]

I didn't want to hold him...not then...my wife did [dad 6]

During their time in the NICU, for some fathers their main priority was their wife rather than their infant:

I mean I'll be honest with you...[mrs x] is more important than the kid...and that's not being rotten [dad 8]

whilst the mothers were concerned less with their relationship with their partner than the condition of their sick infant:

everything else...everyone else...is put to one side [mum 3]

There were tensions evident between mothers and fathers in the early discharge period at home with their infants, characterised by frustrations expressed by mothers:

he just wants you to help him constantly [mum 1]

there's been a few fraught moments [mum 4]

Mothers wanted their partners to be less dependent on them for assistance in childcare. Fathers, however, showed only limited recognition of these tensions or frustrations, and the potential impact on their dyadic relationship:

we found it strange at first [dad 7]

I think I recognise the tensions now...the thing with the housework [dad 8]

I don't think I realised until [mrs x] laid it on the line to me that...just how much she's got to cope with at home [dad 7]

3.5.2. Shared Roles

In the NICU both mothers and fathers reported joint involvement in their infants' care:

we took our turns [mum 3]

it was very equal [mum 5]

I never felt that I was actually just the husband as such [dad 8]

I felt quite involved in the early stage [dad 8]

Post-discharge, fathers were continuing to report equality of role division or shared roles:

I'd hate to think I was missing out on something [dad 6]

I think I probably do as much as I think on the childcare stuff [dad 9]

However, some fathers did report inequalities in terms of household tasks shared with mothers:

I think I'm someone who I think do an awful lot more than I actually do...in the house [dad 7]

None of the mothers, however, reported sharing or equality of roles post-discharge.

3.5.3. *Traditional Gender Roles*

In the NICU both mothers and fathers reported a traditional division of labour or role division. This arose mainly from practical demands on parents:

I certainly didn't spend as much time with him...and mrs x was trying to breast feed...so she was a bit closer [dad 7]

my wife got most of the information...when I was at work [dad 7]

the husband's still have to go to work...I think it's difficult for them [mum 5]

and was also seen by mothers and fathers to be determined by staff attitudes:

I do think they talk to the mothers more...that's because the mothers are there more [mum 4]

I definitely think they addressed more stuff to my wife when we were together [dad 10]

In the home setting, following discharge from the NICU, mothers expressed fears regarding the traditional gender division of roles, in areas such as work outside the home:

My first marriage ended because of the baby...he [my husband] saw me differently after the birth...he thought I shouldn't go back to work...always stay at home with the baby [mum 5]

Some mothers expressed dissatisfaction with the current situation, in which their partners went out to work and they, the mothers, stayed at home with the infant:

I've been stuck in here from half past six this morning...whereas he's gone out and had some fresh air and talked with other people at work [mum 3]

I've told mr x to stay at home all day and I'll go back to work...and he says oh no not that [mum 5]

Fathers stated that traditional role divisions in the home setting were actually useful, particularly for their partners:

I think it's been easier since I've been back at work...she's got herself into a routine now [dad 6]

Fathers admitted that, although their partners had expressed dissatisfaction with the current division of roles and responsibilities in the post-discharge period, they, the fathers, had done little to change things:

if she doesn't say anything then I'll not do anything...I'll only do it when she tells me...just a typical man I suppose [dad 7]

The fathers acknowledged the tensions inherent in traditional role divisions in the early post-discharge period and admitted that:

I think men of my generation tend to think that they're new men and do a lot in the house but they don't do as much as they think they do...I don't think roles have changed that much...but I'm trying to do more [dad 8]

3.5.4. Role Expectations

Mothers expressed doubt and uncertainty for the future when recalling their NICU experiences, and considering the impact of the birth on their relationship with their partner:

I think him being at the birth has brought us even closer...but who knows what will happen in the next wee while [mum 5]

I'll need a lot more help at home with the baby ...but who knows...I'll just have to wait and see what happens...to be honest I'm not holding out much hope [mum 4]

Fathers did not report consideration of future perspectives and plans during their time in the NICU, as they did not appear to have formed an attachment to their infant at that stage:

when she was born I didn't hold out much hope [dad 6]

I'd be very surprised if anybody could actually say oh it's definitely my kid...because you're leaving him...you know it's like visiting somebody [dad 8]

Post-discharge mothers reported negative expectations regarding the impact of their new born infant on the relationship with their partner:

we've got a four year old...our marriage has never really been the same since then...obviously...and when it's the second it'll be even worse [mum 2]

Mothers reported feeling surprised and somewhat overwhelmed by the difficulties they were experiencing in the initial period following discharge from the NICU:

you think it's hard going up and down to the hospital but it really hits you when you get home [mum 3]

Mothers were more negative in their predictions for the future:

there's no illusions about the housework I've always done that...I always probably will do [mum 4]

you can't help but worry that things will change [mum 5]

yet they still reported some vague hope that things would improve:

it's taking mr x longer to realise that the baby's at home now he's 24 hours a day seven days a week [mum 2]

I think it's just taking mr x time to come round to the fact that baby x is a full time job [mum 3]

Overall, fathers were more optimistic about future relationships both with their partner:

hopefully...touch wood...things are going to improve [dad 6]

I think it's great...it's heavy going but I think we're having a great time [dad 8]

and their new born infant:

now he's ours and now he's our responsibility and that's the difference...that's definitely the big difference...now he's ours [dad 10]

3.5.5. *Role Competence*

Mothers did not report feeling competent in their new role during their time in the NICU. Some fathers reported a concern that they were being monitored closely by staff in the NICU, which in turn affected their ability to develop parenting competencies:

I felt we were being watched quite a bit...and that sometimes put me off getting more involved [dad 6]

In addition, one father reported feeling under pressure to feign role competence and marital harmony in front of the medical staff:

so I was aware that oh are they making a note about this...but I am aware of that...and I wanted to keep everything as if in between...on the surface...between my wife and I in front of the medical staff as if everything was smooth and light [dad 8]

Post-discharge both mothers and fathers commented on their partners role competence in the home setting. Mothers were critical of fathers in terms of household tasks and childcare activities:

I don't know if it's the same in every relationship but there's always different standards of how things should be done [mum 3]

I've tried to walk away and leave him...but he comes back through and he's sweating and he says oh here he is you'll have to feed him cause he's widdled everywhere or something [mum 3]

Mothers did talk, however, about their plans to improve the situation and involve their partners more:

I said to him they'll be times when I'm not in and you'll have to do it...so there's no point us doing it together [mum 1]

I think it'll just take time to work on...because he's still apprehensive [mum 4]

Fathers were, overall, more complimentary of mothers' efforts in the early post-discharge period:

she's very tired [dad 9]

I think it's heavy...she's coped...I really do think it's been heavy on her [dad 7]

3.6 Summary of Results

3.6.1 Quantitative Findings

There was evidence to support hypotheses one and two in that there was a significant difference between the parents of pre-term and full term infants at one to two weeks postpartum and no difference between the groups at six to eight weeks post-discharge on their mean levels of dyadic adjustment. There was no evidence of a significant difference on DAS scores between mothers and fathers of pre-term infants at one to two weeks post-discharge, as predicted in hypothesis three.

It is important to question the generalisability of the quantitative findings in the present study due to the small sample sizes and sample attrition at Time Two. The effects of attrition were examined to some extent and there were no apparent differences between the two groups on the range of variables examined. However, it may be that they differ on some other significant variables which the present study failed to examine, for example gender or birth weight of infant. It is therefore difficult at this point to extrapolate from the findings in the present study to a wider population.

3.6.2 *Qualitative Findings*

The qualitative data gathered at Time Two may go some way to highlighting some of the differences and similarities in the experiences of the sub-groups of mothers and fathers of pre-term infants. Both mothers and fathers reported tensions or disagreements in relation to guilt and anxiety surrounding their infants premature birth. There was some disagreement also, over the prioritising of parent-parent and parent-infant relationships.

Parents reported equality of roles in the NICU, which seemed to be valued by both mothers and fathers. Fathers were more aware of traditional gender roles in the NICU than mothers. Whilst, post-discharge, fathers were clearly more comfortable with this traditional role division than were mothers.

Mothers reported more negative expectations of their partner and their dyadic relationship both in the NICU and beyond. Whereas fathers were more optimistic, and dismissive of the potential negative consequences of pre-term birth on their relationship with their partner. Mothers were critical of their partners role competence post-discharge. In contrast, fathers complimented mothers ability to cope with their infant in the early post-discharge period.

In summary, there are some similarities and many more differences emerging from mothers' and fathers' accounts of their experiences following pre-term birth. It would appear also that conflict over various aspects of role division may lead to tensions in

the relationship and possibly poor dyadic adjustment. Although this would require further testing with a larger sample of parents.

CHAPTER 4 - DISCUSSION

4.1 Summary of the Main Findings

As predicted in the first hypothesis, parents of premature infants reported significantly different levels of dyadic adjustment compared to parents of full term infants at one to two weeks postpartum. In fact, parents of premature infants reported significantly higher levels of dyadic adjustment at this Time One assessment than the parents of full term infants, whose scores actually fell below the cut-off and were classified as experiencing significant levels of clinical distress (Walker et al., 1992). By six to eight weeks post-discharge, as predicted in hypothesis two, the pre-term and full term parent groups were equal. In fact, by Time Two both groups were scoring well above the clinically significant cut-off score for distress (Walker et al., 1992). There was no evidence of a difference between pre-term mothers' and pre-term fathers' scores at Time One, as predicted in the third hypothesis. However, testing of hypothesis three was difficult due to small sample sizes and so these findings must be treated with caution. Information from qualitative thematic analysis of interviews with parents of pre-term infants provides some evidence to elucidate the third hypothesis.

4.2 Participant Recruitment

Participant numbers are small in this study mainly due to a time delay in the onset of data collection because of problems encountered in the Ethics application procedure. In addition, recruitment was slow initially due to staff ambivalence and some hostility encountered across all four settings. Recruitment is difficult also in a population under

stress, and this is reflected in the small sample sizes in a number of studies previously reviewed. Participant numbers are particularly small for fathers in the present study, which is also a common factor in the existing research literature.

4.2.1 Political Issues Encountered

Initially, blocks were encountered at the stage of obtaining Ethics Committee approval. The application was rejected initially pending a formal meeting between the present researcher and the Committee members. The medical professionals on the Committee, for example, were concerned that to approach parents of premature infants for involvement in a research study would 'cause them distress'. In addition, the Ethics of Research Committee members regarded questions on the state of the parents dyadic relationship as 'intrusive' and a source of dyadic stress in themselves. In fact, the parents who took part in the study actually reported valuing the opportunity to talk to someone from outside the hospital setting about their current experiences, and the impact of this on their relationship with their partner. These parents who elected not to take part in the research study at the initial recruitment stage were open in their acknowledgement and confident in their assertion that they were 'too stressed' at the present time.

Barker et al. (1994) caution that 'if you want to study settings outside the laboratory or research clinic, access problems are hard to avoid'. Despite intensive efforts, and having gained Ethics Committee approval, gaining access to participants for recruitment was a

difficult and lengthy procedure, with obstacles encountered at all stages in the hospital hierarchy. Certainly, in this study, access was a major problem, with staff who, as identified by Barker et al. (1994), opposed the research 'not always openly'. In this situation it is difficult for the researcher to recognise problem areas in terms of staff hostility to psychological research until it is too late, that is to say when participant recruitment has reached crisis proportions. Weiss (1972) refers to the feelings of 'threat and suspicion' which can be provoked by research in clinical settings, with staff appearing overly protective of 'their' patients. Despite the open and informative approach pursued by the present researcher over the course of several months, staff interest in and support of the study remained low.

4.2.2 Participant Criteria

Although the time commitment for participants in this study was minimal, involving completion and return of only one 32-item questionnaire, recruitment rates remained low. The need to fulfil specific participant criteria may also have influenced recruitment. The identification of married or cohabiting couples, for example, proved difficult at times, as there were a large number of single mothers in both the Post Natal and Neonatal settings. Also, the premature infant criteria, for example, resulted in the exclusion of a number of infants hospitalised in the Neonatal Units, for a period of less than seven days.

4.2.3 Parental Anxiety

There was a low response rate for fathers in the present study, particularly the fathers of premature infants, which appears to be a common problem in research with this population. From interview data with the fathers of pre-terms it was revealed that, even for those who took part in the study, they were in constant fear of being monitored by healthcare staff. There may have been concerns, therefore, particularly for fathers, regarding the assessment of their 'parental suitability' by healthcare professionals at the initial assessment. Parental anxiety regarding the nature and consequences of individual assessment by a healthcare professional seen to be working within the hospital setting, despite the assurances of confidentiality and the independent status of the researcher, should not be under-estimated during the early stages of recruitment. In support of this hypothesis, an increase in response rates for fathers, as compared to mothers, can be observed at six to eight weeks following hospital discharge. By this later stage, perhaps, fathers may feel more competent and confident in their parenting role, and consequently less threatened by health professionals.

There may be another explanation for the poor response rate in the sample of parents of premature infants. Wolke, Sohne, Ohrt & Riegel (1995) report in their follow-up study of preterm children that mothers with low educational qualifications and those with infants with serious developmental delay or disability are most likely to drop out of such studies. In addition, they suggest that parents who 'have not come to terms with their child's

developmental deficits may tend to avoid situations where these difficulties are highlighted' (Wolke et al., 1995, p. 738). Thus, at the initial stage of recruitment, at just one to two weeks postpartum, many of the parents of pre-term infants may be reluctant to engage in something that is an open acknowledgement of their infants condition, and which may force a consideration of its consequences. Whilst, by Time Two, the attrition rate is much lower for the pre-term group (14%) compared to the full term group (48%).

4.3 Sample Attrition

The response rates at Time Two were reduced for both groups as compared to Time One. The effects of sample attrition on statistical comparison over time are difficult to assess, but may be significant. It is difficult to know a great deal about those who failed to respond at Time Two, although analysis revealed no significant differences in their mean scores on the DAS at Time One compared to those who did respond at Time Two. However, as a consequence, the findings from the Time One-Time Two comparisons must be treated with extreme caution.

4.4 Hypothesis One - Dyadic Adjustment at Time One

The first hypothesis stated that parents of premature infants would report different levels of dyadic adjustment to parents of full term infants at Time One. The results of parametric analyses were significant at the .001 level, with the parents of premature infants reporting significantly higher levels of dyadic adjustment than parents of full term

infants at Time One. It may appear initially counter-intuitive that parents are high in levels of dyadic adjustment following their infants' premature birth and during a stressful period of infant hospitalisation. However, from the conflicting findings reviewed in the literature it may prove relatively easy to account for. These results generate two main questions: firstly, why are the parents of pre-terms reporting high levels of dyadic adjustment at Time One? It is also important to address the question, why do parents of full term infants fare so badly in comparison at this stage? That is to say, why do they also fall below the clinical cut-off for distress (Walker et al., 1992) on the DAS?

Primarily, a number of methodological explanations may account for high DAS scores, indicative of good marital adjustment, in the parents of premature infants. There is a possibility of a selection bias accounting for the findings in hypothesis one. It is unclear, for example, which member of the couple completed the questionnaire, since the majority of the sample constituted only one partner in the relationship dyad. It may be argued that if only one of the couple fill in the form is it most likely to be the least stressed member of the dyad. In addition, it may be argued that the pre-term sample were 'self-selected'. Pre-term parental respondents who were sufficiently organised and committed to participate in the research at a predicted time of 'crisis' (Le Masters, 1957) may well have been those who were well adjusted with regard to family and dyadic functioning.

In addition, the parents of premature infants may have been susceptible to a 'social desirability' of responses on the DAS at Time One, which limits the utility of self-report data. Certainly, response sets may occur in marital research, since marriage is a highly valued social institution (Spanier, 1979). Furthermore, Walker et al. (1992) propose that parents of chronically ill hospitalised children are particularly prone to social desirability bias and denial. From the accounts of many of the parents of premature infants, particularly the fathers, there was a fear of being watched in the NICU, and being under scrutiny from medical and health professionals. In practical terms, these parents of premature infants at Time One still do not have full 'possession' of their infant and may perceive the hospitalisation period as probationary in parenting terms and therefore feel compelled to present a picture of perfect dyadic adjustment.

However, in the present study the research procedures were set up so as to minimise the participant's investment in impression management, as recommended by Johnson & Greenberg (1985), by ensuring, for example, that the researcher was absent when the questionnaires were completed and that partners did not compare responses on the measure. In addition, O'Leary & Turkewitz (1978) state that:

'it is moot whether these socially desirable responses reflect active distortions or honest tendencies of spouses to exaggerate positive qualities of their mates, and it has also been argued that a large percentage of socially desirable responses may not decrease the validity of a marital satisfaction test' (p. 749)

Another factor accounting for the high DAS scores reported by parents of premature infants may simply be a consequence of most self-report assessment. The DAS is based on the assumption that higher scores indicate better adjustment, however Kazak et al. (1988) suggest that high scores may be pathological, with individuals indicating that they 'always agree' being 'enmeshed' rather than 'constructively cohesive'. In addition, the authors suggest that high scores also indicate 'idealisation' and 'self-sacrifice' rather than a well-adjusted relationship (Kazak et al., 1988). This may well be the case, but it is a problem that will emerge across a range of studies employing marital adjustment measures such as the DAS.

Another methodological failing of the present study is that there was no measure of the health status of the pre-term infants in the study, with the exception of the specific selection criteria. Therefore those parents of premature infants that participated in the study may have been those with the healthiest infants. Jarvis, Myers & Creasey (1989), for example, have demonstrated the importance of severity of illness and health status of premature infants for postpartum parental adjustment. In their sample the mothers of the sickest infants were less sensitive to their infants cues, did not respond as well to their infants' distress and did not foster social-emotional growth in their infants as much as mothers of healthier premature infants (Jarvis et al., 1989). Therefore it may be important to examine dyadic adjustment in relation to infant health status at a particular time point.

Although, despite this criticism, all of the premature infants in the study were hospitalised in the Neonatal unit for a minimum period of 10 weeks.

In attempting to account for the positive dyadic adjustment of parents of pre-term infants at one to two weeks postpartum it may be important to consider the parental relief that their infant had survived following the initial shock of the premature birth. The high scores on the DAS may reflect a 'halo effect' at this time, with parents of pre-terms experiencing a general feeling of euphoria that is reflected in their self-report dyadic adjustment.

Finally, it may be the case that the mothers and fathers of premature infants pulled together at a time of 'crisis' or stress at the Time One assessment. A stressful event such as pre-term birth may precipitate couples setting aside their differences and tolerating or ignoring each others' idiosyncrasies in order to cope more effectively with the current situation. In support of this, mothers of pre-terms recalled that during their infant's time in the NICU they focused all of their attentions on their infant:

all that stuff gets shelved when you've got a baby in the NICU everything just focuses on the baby

everything else is put to one side

you just don't do anything...you just focus on the baby for that time

In contrast to the literature reviewed there is little to suggest a 'crisis' in the relationship of the parents of pre-term infants in the immediate postpartum period. However, this study replicates the findings of Miller & Sollie (1980) in that it may reflect a 'baby honeymoon' (Worthington & Buston, 1986). This honeymoon period may be all the more pronounced for this group of pre-term parents who are initially relieved at the survival of their tiny, sick infant.

It may prove more difficult, however, to explain why parents of full term infants report poor dyadic adjustment in the first few weeks postpartum. If one were to apply the principle of a 'selection bias' to this group, then it begs the question: how would the parents of full term infants who failed to participate in the study have scored on the DAS? Would they have reported poorer dyadic adjustment even than the present recruited sample?

In support of the accuracy of the Time One findings for the parents of full term infants it may be the case that their responses are actually less subject to a social desirability bias than the pre-term group. The responses from the parents of full term infants may actually be more accurate or honest at Time One because they may already be at home with their infants and perhaps not feeling that they are under the direct jurisdiction of hospital staff and other health professionals. Therefore the parents of healthy full term infants may at

this point feel that they are able to be more honest in the description of their dyadic adjustment.

The parents of healthy full term infants may report poor dyadic adjustment during the first few weeks postpartum because they have not had so much input or advice from medical and health staff as have the pre-term parents in the first few weeks, which may result in increased couple disagreement over the 'right' or 'wrong' way to care for their infant. There may be a greater disparity between full term mothers' and fathers' prior socialisation experiences involving contact with and care for infants, whereas the mothers and fathers in the pre-term parent group will have received similar informative and educative input following their infants admission to the Neonatal unit. In support of this are the reports from parents of premature infants interviewed, who all made reference to the utility of advice and support from staff in the NICU, predominantly related to their infants' care. However, it must also be noted here that unfortunately there are no qualitative data available from the present study on the self-report experiences of parents of healthy full term infants, which would probably have served to clarify this hypothesis at this stage in the discussion.

In summary, Cowan & Cowan (1987) describe the early transition to parenthood as a 'balancing act' for new parents, during which each partner must juggle new and competing demands and keep their relationship as a couple alive. For the parents of

premature infants in the present study this may have been facilitated during the initial period of hospitalisation in the NICU. Fathers, for example, reported that:

I suppose life went on

for three and a half months we used to say we'll go out for a meal and forget about this

Whereas for the parents of healthy full term infants within a few days of the birth they were immersed in the task of sole care and responsibility for their infant, with little time or energy remaining for investment in their own relationship.

4.5 Hypothesis Two

The second hypothesis stated that parents of premature infants and parents of healthy full term infants would report similar levels of dyadic adjustment at six to eight weeks post-discharge. There was support for this hypothesis in that the two groups' total mean scores on the DAS were almost identical at the Time Two assessment. Unfortunately, due to sample attrition the group sample sizes at Time Two were reduced. This resulted in the assessment of what may be representative of a different population at Time Two. However, there was no apparent discrepancy between the mean DAS scores at Time One for those parents who participated at Time Two and those who dropped out. Therefore, this hypothesis was supported. Although it is necessary to urge caution again, when seeking to generalise from these findings, due to the small sample sizes.

An interesting point for consideration here is does the use of repeated measures lead to a familiarity effect with the measure? That is to say, do participants perform better or score higher on a questionnaire at Time Two because they are more familiar with the measure? If this hypothesis is applied to the pre-term parent group it may, for example, explain the anxiety reported by the parents of premature infants when interviewed. For example, if the parents of premature infants were feeling under threat from the current researcher and her status as a health professional during their infant's hospitalisation in the NICU, they may fear the consequences of reporting low levels of marital adjustment or tensions in their relationship with their partner. However, following discharge from the NICU they may have learned that there were no negative consequences of completing the questionnaires, be more convinced by the reassurances of confidentiality and perhaps respond more openly and honestly to questions with which they are already familiar.

The parents of full term infants may be reporting an improvement in levels of dyadic adjustment by six to eight weeks post-discharge as a result of changes in their social situation by this time. They may have experienced increased input or 'interference' from family and friends during the initial period at home with their new born infant, which may have proven a source of stress for many couples who resent involvement from relatives when they value time alone with their partner and their infant. Then, by Time Two, at six to eight weeks later, family and friends visit less and therefore the couple may have more

time to themselves and to focus on their relationship needs as well as the needs of their infant.

As has been suggested, the pre-term couples may have pulled together during the 'crisis' at Time One when under stress, and so all other interpersonal issues may have been put on hold for the parents of pre-term infants. Any problems in their relationship may have been shelved until post-discharge when there is a significant decline observed in dyadic adjustment. Certainly, the mothers of premature infants who were interviewed reported putting everything else to one side and focusing all of their attention on their sick infant to the exclusion of all other individuals. Therefore for parents of premature infants things may have returned to normal by Time Two and by the time of this assessment they may actually be on a downward trajectory, as problems in the relationship with their partner begin to re-emerge. For example, post-discharge the mothers of premature infants reported a range of areas of conflict with their partner:

at night the baby must be up every two hours...but my husband doesn't hear it

I don't know if it's the same in every relationship but there's always different standards of how things should be done

I've tried to walk away and leave him...but he comes back through and he's sweating and he says oh here he is you'll have to feed him cause he's widdled everywhere or something

Fein's (1976) study may provide corroboration for the findings that parents of full term infants report significant improvements in their dyadic adjustment at six to eight weeks

postpartum. Fein (1976) reports, from a study of 32 middle-class couples with a first born-child with follow up at six weeks postpartum, that by this time most couples had developed relatively ordered patterns of home life and baby care and seemed to be coping well with the realities of parenting. Fein (1976) reported that the development of a coherent role, or 'a pattern of activities and expectations', was most important to couples' postpartum adjustment.

From the findings of a Repeated-Measures ANOVA it would appear that time is having a different effect for the parents of premature and full term infants. However, at the present time, it may be difficult to extrapolate from these findings. It may be hypothesised that the pre-term group will continue to deteriorate, although this is unclear from the current literature on premature infants. A recently published review by O'Brien, Asay & McCluskey-Fawcett (1999) reports that family functioning, including perceived levels of partner support, declines significantly from birth, through discharge, to six weeks post-discharge. The authors also hypothesise that this level of functioning may continue to deteriorate for several months for families caring for a premature infant. Further studies may therefore provide useful information as to the ongoing impact of premature birth on parents.

4.6 Hypothesis Three

The third hypothesis stated that mothers of premature infants would report different levels of dyadic adjustment at Time One compared to fathers of premature infants. Unfortunately there are very small numbers in these two groups for statistical comparison. From the results of non-parametric analyses the differences between the pre-term mothers' and fathers' means scores on the DAS, at Time One, during the period of hospitalisation in the NICU, were non-significant.

The qualitative data from thematic analysis of interviews with mothers and fathers of premature infants may prove useful in examining differences between their dyadic adjustment in the NICU and post-discharge. It may be that fathers find the NICU experience more difficult than mothers. While the mother is hospitalised the father is actually in a very vulnerable position, he may be unprepared to be a primary caregiver, feel threatened by predominantly female staff, whilst being expected to assume a role of support for his wife whilst needing comfort himself (Shellabarger & Thompson, 1993). From fathers' accounts, they certainly felt less involved in the NICU than their partners:

*I definitely think they addressed more stuff to my wife when we were together
the junior staff...well registrars and down didn't really talk to me too much*

Steele (1987) also supports this view of the father feeling threatened by the prominence of his role in the NICU, where he is expected to be a model of self-control and possibly coping. The fathers in the present study also reported this additional pressure:

so I was aware that oh are they making a note about this...but I am aware of that...and I wanted to keep everything as if in between...on the surface...between my wife and I in front of the medical staff as if everything was smooth and light

Also, immediately following birth fathers of pre-terms were torn between the demands of supporting their wife and nurturing their baby:

they said I could have gone and seen him...but I wasn't really wanting to...I was wanting to see him...but I was wanting to go up with mrs x

The mothers of pre-term infants, however, reported a strengthening of their relationship with their partner during the period of their infant's hospitalisation in the NICU:

we just pulled closer for the sake of her or ourselves

I would feel we are all the stronger of it

we were just more support to each other when it comes to things like that

4.7 Application of Role Theory

It may be argued that the participants in the current study are not an appropriate sample to test role theory as they are not all first-time parents. One might expect the birth of a first child to have a more profound impact on parenting roles and relationships than subsequently born children. However, with the sample of pre-term parents interviewed they all reported evidence of conflict over roles in the NICU and post-discharge regardless of whether it was a first-born or subsequently born infant.

It has been suggested in the literature that role conflict does not always lead to increased stress for the individual. Sieber (1974) questions the assumption in Role Theory that the

demands of multiple roles produces a strong tendency toward role strain as a consequence of role overload (Goode, 1970). Sieber (1974) proposes that the benefits of role accumulation outweigh any stress or conflict to which it might give rise, with the net result of gratification. He states that: 'since it is obvious that humans are not incapacitated by role strain, and that society is not characterised by disorder, some process must be adduced by role theorists to account for the absence of social havoc and psychological dismay' (p. 569). He adds that the benefits of role accumulation bear most directly on reducing personal and interpersonal tension. Therefore, evidence of role strain or conflict may actually have a positive outcome, as it may strengthen relationships in the longer term. This may provide some account of the reports of high dyadic adjustment scores reported by parents of premature infants at Time One, when they were possibly experiencing greatest conflict over roles with their partner, but which may have actually served to reduce relationship tension.

4.8 Methodological Limitations

Many of the methodological limitations of the study have arisen and been discussed in the light of the various hypotheses to which they specifically relate. The main problem arising in this study, however, remains the small sample size. As a result the parametric analyses must be interpreted with caution, although the high levels of significance may provide some reassurance as to their validity. The utility of the qualitative data on the parents of premature infants must not be under-estimated in the present study, although it would

have been ultimately more useful considered alongside similar data from the parents of healthy full term infants.

An important methodological consideration in the assessment at Time Two, is that parents of premature infants have been parents for many weeks before discharge from the NICU, and that this period is different for each pre-term infant and their parents. Therefore, in looking at the two groups of parents of pre-term and full term infants it is difficult to know what exactly is being compared at Time Two. Also, for the Time One assessment, with the parents of full term infants, for example, this was completed when they had been at home with their infant for one to two weeks. It would be interesting to see, therefore, whether the parents of premature infants report a significant drop in DAS scores after one to two weeks post-discharge from the NICU, as was assessed for the parents of full term infants at Time One.

4.9 Conclusions and Future Directions

The methodological limitations aside, the present study makes several contributions to the current literature. First, and most fundamental the use of qualitative interview data was useful in explaining some of the conflicting findings in the current literature and the present study. With a poorer response rate at Time Two the use of qualitative data to explore hypotheses related to the parents of premature infants has proven invaluable. The interview transcripts were also useful in exploring the complexity of pre-term parents'

thoughts and feelings at this time. The use of qualitative data in further studies may be useful in comparing the experiences of parents of healthy full term infants, particularly the elusive group of fathers.

A summary of the findings shows that by six to eight week follow-up there is resolution in parents of full-terms but the dyadic adjustment of parents of pre-terms has declined. However, the six to eight week follow-up period may not have been adequate to assess the full impact of having a child on a couple's relationship. Therefore it would be interesting to follow-up the samples, to see if, for example, the parents of premature infants begin to improve after another six to eight weeks, or their relationship quality continues to decline.

However, the time-span of the present study may actually be the optimum time to assess parents of healthy new born and premature infants in particular. Kaplan, Smith, Grobstein & Fischman (1973) propose that individual and family reactions to threats, for example, premature birth, are fashioned one to four weeks after diagnosis, therefore this may be an ideal time to discover problems in family coping. Therefore, it may be useful to identify problems in family functioning and develop an intervention programme, particularly for parents of premature infants, who already receive a great deal of healthcare input and support. In addition, such a programme may be useful for parents of healthy full term infants, particularly fathers, who appear, in the very early postpartum period at least, to

be experiencing problems in balancing their relationship needs with the needs of a new baby.

In these study settings at least, the parents of premature infants seem to receive the optimum level of input and support from staff in the NICU. There are, however, a number of implications for clinical practice arising from this study. It would seem that parents of prematurely born hospitalised infants, particularly fathers, are sometimes uncomfortable with the non-traditional division of parenting tasks in the NICU. These findings may have implications for nursing staff in NICU, where a consideration of more traditional role divisions in the post-discharge period may be important in order to ease the transition from intensive hospital care to minimally supported home care. Humenick & Bugen (1987) have proposed a role for nursing staff in the mediation of role conflict for parents of new-borns, both in the Post Natal wards and the NICU. The reports from parents in the NICU would support this role for nurses. However, it is worth considering reports in the literature suggesting that role conflict or tensions experienced by parents at times of increased stress may actually benefit their role development and consequently their relationship with their partner (Sieber, 1974).

It may well be the case that parents of premature infants receive the optimum amount of input during the hospitalisation period in the NICU following the birth of their infant. However, at discharge home they may benefit from extra input or preparation for

considering the impact of this on their relationship. Therefore, for the parents of the healthy full term infant who are discharged from the Post Natal ward within a few days postpartum they may be unprepared for the impact of this upon their relationship, and may, therefore, also benefit from additional input or advice from staff, or the opportunity to attend parenting support groups. Also, it is important to note that, for the current sample at least, this would be required for experienced as well as first time parents.

Future research focusing on differences in the postnatal experiences of mothers and fathers may serve to elucidate the impact on their dyadic relationship. Certainly, from the qualitative interviews, at least, differences are beginning to emerge in their accounts of role tensions during the period of hospitalisation, and later at six to eight weeks post-discharge. Also, it may be important to look more closely at parents of first time vs. subsequently born children, to see why, in this study at least, there is little difference in terms of the impact on their marriage. Perhaps, also, parents in the NICU could be reassured as to their fear that the new born is not yet 'theirs' and their concern that they are being judged or monitored by a range of health professionals, who will eventually determine whether they are suitable parents and when they will be able to take this infant home with them and keep it.

In conclusion, the parents of a healthy new born infant or a hospitalised premature infant are at risk for poor dyadic adjustment in the early postpartum period. In addition, conflict

over parental roles appears to be greatest in the immediate post-discharge period. However, the group of pre-term parents interviewed generally viewed childbirth and its consequences as a positive experience, despite the concomitant negative consequences for their dyadic relationship:

I mean all children are gifts

certainly I'm very happy with what we've got

Perhaps then, after all, Larkin's warnings will continue to go unheeded by couples. Unfortunately though for all parents, if they manage to hold their relationship together into their infant's early childhood and beyond they are then faced with the possibility of Larkin's major concern that:

They fuck you up, your mum and dad.

They may not mean to, but they do.

They fill you with the faults they had

And add some extra, just for you

(Larkin, 1974, 'This Be The Verse', vs. 1)

REFERENCES

Affleck, G., Tennen, H. & Rowe, J. (1990). Mothers, fathers, and the crisis of newborn intensive care. *Infant Mental Health Journal*, **11**, 12-25.

Affleck, G. & Tennen, H. (1991). The effect of newborn intensive care on parents' psychological well-being. *Critical Health Care*, **20**, 6-14.

Ballard, C.G., Davies, R., Cullen, R.N., Mohan, R.N. & Dean, C. (1994). Prevalence of postnatal psychiatric morbidity in mothers and fathers. *British Journal of Psychiatry*, **164**, 782-788.

Ballard, C.G. & Davies, R. (1996). Postnatal depression in fathers. *International Review of Psychiatry*, **8**, 65-71.

Barker, C., Pistrang, N. & Elliott, R. (1994). *Research Methods in Clinical and Counselling Psychology*. Chichester: John Wiley & Sons.

Barnard, K.E., Hammond, M.A., Sumner, G.A., Kang, R., Johnson-Crowley, N., Snyder, C., Spietz, A., Blackburn, S., Brandt, P. & Magyary, D. (1987). Helping parents with

preterm infants: field test of a protocol. *Early Child Development and Care*, **27**, 255-290.

Beail, N. (1985). Fathers and infant caretaking. *Journal of Reproductive and Infant Psychology*, **3**, 54-63.

Beckman, P.J. & Pokorni, J.L. (1988). A longitudinal study of families of preterm infants: changes in stress and support over the first two years. *The Journal of Special Education*, **22**, 55-65.

Belsky, J. (1979). Mother-father-infant interaction: a naturalistic observational study. *Developmental Psychology*, **15**, 601-607.

Belsky, J., Spanier, G.B. & Rovine, M. (1983). Stability and change in marriage across the transition to parenthood. *Journal of Marriage and the Family*, **8**, 567-577.

Belsky, J. (1984). The determinants of parenting: a process model. *Child Development*, **55**, 83-96.

Belsky, J., Gilstrap, B. & Rovine, M. (1984). The Pennsylvania infant and family development project I: stability and change in mother-infant and father-infant interaction in a family setting at one, three and nine months. *Child Development*, **55**, 692-705.

Belsky, J. (1985). Exploring individual differences in marital change across the transition to parenthood: the role of violated expectations. *Journal of Marriage and the Family*, **11**, 1037-1044.

Belsky, J. & Isabella, R.A. (1985). Marital and parent-child relationships in family of origin and marital change following the birth of a baby: a retrospective analysis. *Child Development*, **56**, 342-349.

Belsky, J., Lang, M. & Huston, T.L. (1986). Sex typing and division of labour as determinants of marital change across the transition to parenthood. *Journal of Personality and Social Psychology*, **50**, 517-522.

Belsky, J. & Volling, B.L. (1987). Mothering, fathering, and marital interaction in the family triad during infancy. In P.W. Berman & F.A. Pedersen (Eds), *Men's Transitions to Parenthood: Longitudinal Studies of Early Family Experience*, pp. 37-63. New Jersey: Lawrence Erlbaum Associates.

Belsky, J. & Rovine, M. (1990). Patterns of marital change across the transition to parenthood: pregnancy to three years postpartum. *Journal of Marriage and the Family*, **52**, 5-19.

Bem, S.L. (1976). *The satisfaction scale*. Unpublished scale, Stanford University.

Bender, H. & Swan-Parente, A. (1983). Psychological and psychotherapeutic support of staff and parents in an intensive care baby unit. In J.A. Davis, M.P.M. Richards & N.R.C. Robertson (Eds), *Parent-Baby Attachment in Premature Infants*, pp. 14-23. London: Croom Helm.

Berman, P.W. & Pedersen, F.A. (1987). Research on men's transitions to parenthood. In P.W. Berman & F.A. Pedersen (Eds), *Men's Transitions to Parenthood: Longitudinal Studies of Early Family Experience*, pp. 217-242. New Jersey: Lawrence Erlbaum Associates.

Bond, C.R. & McMahon, R.J. (1984). Relationships between marital distress and child behaviour problems, maternal personal adjustment, maternal personality, and maternal parenting behaviour. *Journal of Abnormal Psychology*, **93**, 348-351.

- Boyatzis, R.E. (1998). *Transforming Qualitative Information: Thematic Analysis and Code Development*. London: Sage Publications.
- Broom, B.L. (1984). Consensus about the marital relationship during transition to parenthood. *Nursing Research*, **33**, 223-228.
- Brooten, D., Gennaro, S., Brown, L.P., Butts, P., Gibbons, A.L., Bakewell-Sachs, S. & Kumar, S.P. (1988). Anxiety, depression, and hostility in mothers of preterm infants. *Nursing Research*, **37**, 213-216.
- Brown, P., Rustia, J. & Schappert, P. (1991). A comparison of fathers of high-risk newborns and fathers of healthy newborns. *Journal of Pediatric Nursing*, **6**, 269-273.
- Burr, W.R. (1972). Role transitions: a reformulation of theory. *Journal of Marriage and the Family*, **8**, 407-416.
- Casas, J.M. & Ortiz, S. (1985). Exploring the applicability of the Dyadic Adjustment Scale for assessing level of marital adjustment with Mexican Americans. *Journal of Marriage and the Family*, **11**, 1023-1027.

- Clarke-Stewart, K.A. (1978). And daddy makes three: the father's impact on mother and child. *Child Development*, **49**, 466-478.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioural Sciences*. New Jersey: Erlbaum.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, **112**, 155-159.
- Cooper, P.J., Campbell, E.A., Day, H. & Bond, A. (1988). Non psychotic psychiatric disorder after childbirth: a prospective study of prevalence, incidence, course and nature. *British Journal of Psychiatry*, **152**, 799-806.
- Cottrell, L.S. (1942). The adjustment of the individual to his age and sex roles. *American Sociological Review*, **7**, 617-620.
- Cowan, C.P., Cowan, P.A., Heming, G., Garrett, E., Coysh, W.S., Curtis-Boles, H. & Boles III, A.J. (1985). Transitions to parenthood: his, hers and theirs. *Journal of Family Issues*, **6**, 451-481.
- Cowan, C.P. & Cowan, P.A. (1987). Men's involvement in parenthood: identifying the antecedents and understanding the barriers. In P.W. Berman & F.A. Pedersen (Eds),

Men's Transitions to Parenthood: Longitudinal Studies of Early Family Experience, pp. 145-174. New Jersey: Lawrence Erlbaum Associates.

Cox, J.L., Holden, J.M. & Sagovsky, R. (1987). Detection of postnatal depression: development of the 10-item Postnatal Edinburgh Depression Scale. *British Journal of Psychiatry*, **150**, 782-786.

Crnic, K.A., Greenberg, M.T., Robinson, N.M. & Ragozin, A.S. (1984). Maternal stress and social support: effects on the mother-infant relationship from birth to eighteen months. *American Journal of Orthopsychiatry*, **54**, 224-235.

Cummings, E.M., Ballard, M., El-Sheikh, M. & Lake, M. (1991). Resolution and children's responses to interadult anger. *Developmental Psychology*, **27**, 462-470.

Cummings, E.M. & O'Reilly, A.W. (1997). Fathers in family context: effects of marital quality on child adjustment. In M.E. Lamb (Ed), *The Role of the Father in Child Development*, pp. 49-65. New York: John Wiley & Sons.

Curran, A., Brighton, J. & Murphy, V. (1997). Psychoemotional care of parents of children in a neonatal intensive care unit: results of a questionnaire. *Journal of Neonatal Nursing*, **1**, 25-29.

- Davis, D.H. & Thoman, E.B. (1988). The early social environment of premature and fullterm infants. *Early Human Development*, **17**, 221-232.
- Davis, D.H. & Miles, M.S. (1997). Parenting the prematurely born child. *Annual Review of Nursing Research*, **15**, 3-34.
- Deater-Deckard, K., Pickering, K., Dunn, J.F. & Golding, J. (1998). Family structure and depressive symptoms in men preceding and following the birth of a child. *American Journal of Psychiatry*, **155**, 818-823.
- Dickie, J.R. (1987). Interrelationships within the mother-father-infant triad. In P.W. Berman & F.A. Pedersen (Eds), *Men's Transitions to Parenthood: Longitudinal Studies of Early Family Experience*, pp. 113-143. New Jersey: Lawrence Erlbaum Associates.
- Dohrenwend, B., Krasnoff, L., Askenasy, A. & Dohrenwend, B. (1978). Exemplification of a method for scaling life events. *Journal of Health and Social Behaviour*, **19**, 205-229.
- Drake, E. (1995). Discharge teaching needs of parents in the NICU. *Neonatal Network*, **14**, 49-53.

- Easterbrooks, M.A. & Emde, R.N. (1988). Marital and parent-child relationships: the role of affect in the family system. In R.A. Hinde & J. Stevenson-Hinde (Eds), *Relationships within Families: Mutual Influences*, pp. 83-103. Oxford: Clarendon Press.
- Eddy, J.M., Heyman, R.E. & Weiss, R.L. (1991). An empirical evaluation of the dyadic adjustment scale: exploring the differences between marital 'satisfaction' and 'adjustment'. *Behavioural Assessment*, **13**, 199-220.
- Engfer, A. (1988). The interrelatedness of marriage and the mother-child relationship. In R.A. Hinde & J. Stevenson-Hinde (Eds), *Relationships within Families: Mutual Influences*, pp. 104-118. Oxford: Clarendon Press.
- Escobar, G.J., Littenberg, B. & Petitti, D.B. (1991). Outcome among surviving very low birthweight infants: a meta-analysis. *Archives of Disease in Childhood*, **66**, 204-211.
- Fein, R.A. (1976). The first weeks of fathering: the importance of choices and supports for new parents. *Birth and the Family Journal*, **3**, 53-58.
- Feldman, S.S. & Nash, S.C. (1984). The transition from expectancy to parenthood: impact of the firstborn child on men and women. *Sex Roles*, **11**, 61-78.

- Feldman, S.S. (1987). Predicting strain in mothers and fathers of six month-old infants. In P.W. Berman & F.A. Pedersen (Eds), *Men's Transitions to Parenthood: Longitudinal Studies of Early Family Experience*, pp. 13-35. New Jersey: Lawrence Erlbaum Associates.
- Ferketich, S.L. & Mercer, R.T. (1995). Paternal-infant attachment of experienced and inexperienced fathers during infancy. *Nursing Research*, **44**, 31-37.
- Field, T. (1977). Effects of early separation, interactive deficits, and experimental manipulations on infant-mother face-to-face interaction. *Child Development*, **48**, 763-771.
- Fincham, F.D. & Bradbury, T.N. (1987). The assessment of marital quality: a reevaluation. *Journal of Marriage and the Family*, **49**, 797-809.
- Fincham, F.D., Grych, J.J. & Osborne, L.N. (1994). Does marital conflict cause child maladjustment? Directions and challenges for longitudinal research. *Journal of Family Psychology*, **8**, 128-140.
- Gennaro, S. (1988). Postpartal anxiety and depression in mothers of term and preterm infants. *Nursing Research*, **37**, 82-85.

- Gennaro, S., Grisemer, A. & Musci, R. (1992). Expected versus actual life-style changes in mothers of preterm low birth weight infants. *Neonatal Network*, **11**, 39-45.
- Goldberg, W.A. & Easterbrooks, M.A. (1984). Role of marital quality in toddler development. *Developmental Psychology*, **20**, 504-514.
- Goldberg, W.A., Michaels, G.Y. & Lamb, M.E. (1985). Husbands' and wives' adjustment to pregnancy and first parenthood. *Journal of Family Issues*, **6**, 483-503.
- Goode, W.J. (1970). A theory of role strain. *American Sociological Review*, **25**, 483-496.
- Gottman, J.M. & Katz, L.F. (1989). Effects of marital discord on young children's peer interaction and health. *Developmental Psychology*, **25**, 373-381.
- Greenberg, M. & Morris, N. (1974). Engrossment: the newborn's impact upon the father. *American Journal of Orthopsychiatry*, **44** (4), 520-531.
- Grych, J.H. & Fincham, F.D. (1993). Children's appraisals of marital conflict: initial investigations of the cognitive-contextual framework. *Child Development*, **64**, 215-230.

Gyler, L., Dudley, M., Blinkhorn, S. & Barnett, B. (1993). The relationship between psychosocial factors and developmental outcome for very low and extremely low birthweight infants: a review. *Australian and New Zealand Journal of Psychiatry*, **27**, 62-73.

Harrison, M.J. (1990). A comparison of parental interactions with term and preterm infants. *Research in Nursing and Health*, **13**, 173-179.

Harrison, M.J. & Magill-Evans, J. (1996). Mother and father interactions over the first year with term and preterm infants. *Research in Nursing and Health*, **19**, 451-459.

Hochschild, A.R. (1995). Understanding the future of fatherhood: the 'daddy hierarchy' and beyond. In M.C.P. van Dongen, G.A.B. Frinking & M.J.G. Jacobs (Eds), *Changing Fatherhood: An Interdisciplinary Perspective*, pp. 219-230. Amsterdam: Thesis.

Holmes, T.H. & Rahe, R.H. (1967). The social readjustment rating scale. *Journal of Psychosomatic Research*, **11**, 213-218.

- Hughes, M.A. & McCollum, J. (1994). Neonatal intensive care: mothers' and fathers' perceptions of what is stressful. *Journal of Early Intervention*, **18**, 258-268.
- Humenick, S.S. & Bugen, L.A. (1987). Parenting roles: expectation versus reality. *Maternal Child Nursing*, **12**, 36-39.
- Hynan, M.T. (1991). The emotional reactions of parents to their premature baby. *Pre- and Peri-Natal Psychology*, **6**, 85-95.
- Jacques, N.C.S., Hawthorne-Amick, J.T. & Richards, M.P.M. (1983). Parents and the support they need. In J.A. Davis, M.P.M. Richards & N.R.C. Robertson (Eds), *Parent-Baby Attachment in Premature Infants*, pp. 100-128. London: Croom Helm.
- Jarvis, P.A., Myers, B.J. & Creasey, G.L. (1989). The effects of infants' illness on mothers' interactions with prematures at four and eight months. *Infant Behaviour and Development*, **12**, 25-35.
- Jeffcoate, J.A., Humphrey, M.E. & Lloyd, J.K. (1979). Role perception and response to stress in fathers and mothers following pre-term delivery. *Social Science and Medicine*, **13**, 139-145.

- Johnson, S.M. & Greenberg, L.S. (1985). Differential effects of experiential and problem-solving interventions in resolving marital conflict. *Journal of Consulting and Clinical Psychology*, **53**, 175-184.
- Jones, C. (1981). Father to infant attachment: effects of early contact and characteristics of the infant. *Research in Nursing and Health*, **4**, 193-200.
- Jouriles, E.N., Pffner, L.J. & O'Leary, S.G. (1988). Marital conflict, parenting, and toddler conduct problems. *Journal of Abnormal Child Psychology*, **16**, 197-206.
- Kaplan, D.M., Smith, A., Grobstein, R. & Fischman, S.E. (1973). Family mediation of stress. *Social Work*, **7**, 60-69.
- Kazak, A.E., Jarmas, A. & Snitzer, L. (1988). The assessment of marital satisfaction: an evaluation of the Dyadic Adjustment Scale. *Journal of Family Psychology*, **2**, 82-91.
- Kerig, P.K., Cowan, P.A. & Cowan, C.P. (1993). Marital quality and gender differences in parent-child interaction. *Developmental Psychology*, **29**, 931-939.

- Lamb, M.E. (1997). Fathers and child development: an introductory overview and guide. In M.E. Lamb (Ed), *The Role of the Father in Child Development*, pp. 1-18. New York: John Wiley & Sons.
- Lamb, M.E. & Billings, L.A.L. (1997). Fathers of children with special needs. In M.E. Lamb (Ed), *The Role of the Father in Child Development*, pp. 179-190. New York: John Wiley & Sons.
- Larkin, P. (1974) *This Be The Verse. High Windows*. London: Faber & Faber.
- Lavee, Y., McCubbin, H.I. & Olson, D.H. (1987). The effect of stressful life events and transitions on family functioning and well-being. *Journal of Marriage and the Family*, **49**, 857-873.
- Leiderman, P.H. (1971). Human mother-infant social bonding: is there a sensitive phase? In K. Immelman, G.W. Barlow, L. Petrinoich & M. Main (Eds), *Behavioural Development*. New York: Cambridge.
- Leiderman, P.H. & Seashore, M.J. (1975). Mother-infant separation: some delayed consequences. *Parent-Infant Interaction*. CIBA Foundation Symposium 33. Amsterdam: Elsevier.

- Leifer, A.D., Leiderman, P.H., Barnett, C.R. & Williams, J.A. (1972). Effects of mother-infant separation on maternal attachment behaviour. *Child Development*, **43**, 1203-1218.
- Le Masters, E.E. (1957). Parenthood as crisis. *Marriage and Family Living*, **11**, 352-355.
- Levy-Shiff, R., Sharir, H. & Mogilner, M.B. (1989). Mother- and father-preterm relationship in the hospital preterm nursery. *Child Development*, **60**, 93-102.
- Levy-Shiff, R., Hoffman, M.A., Mogilner, S., Levinger, S. & Mogilner, M.B. (1990). Fathers' hospital visits to their preterm infants as a predictor of father-infant relationship and infant development. *Pediatrics*, **86**, 289-293.
- Locke, H.J. & Wallace, K.M. (1959). Short marital adjustment and prediction tests: their reliability and validity. *Marriage and Family Living*, **8**, 251-255.
- Lozoff, B., Brittenham, G.M. & Trause, M.A. (1977). The mother-newborn relationship: limits of adaptability. *Journal of Pediatrics*, **91**, 1-7.
- McCain, G.C. (1990). Family functioning two to four years after preterm birth. *Journal of Pediatric Nursing*, **5**, 97-103.

- McCormick, M.C. (1997). The outcomes of very low birth weight infants: are we asking the right questions? *Pediatrics*, **99**, 869-876.
- McGuire, J.C. & Gottlieb, B.H. (1979). Social support groups among new patients: an experimental study in primary prevention. *Journal of Clinical Child Psychology*, **3**, 111-116.
- McHale, S.M. & Huston, T.L. (1985). The effect of the transition to parenthood on the marriage relationship. *Journal of Family Issues*, **6**, 409-433.
- Marton, P., Minde, K. & Perrota, M. (1981). The role of the father for the infant at risk. *American Journal of Orthopsychiatry*, **51**, 672-679.
- Miles, M.S., Carter, M.C., Spicher, C. & Hassanein, R.S. (1984). Maternal and paternal stress reactions when a child is hospitalised. *Issues in Comprehensive Pediatric Nursing*, **7**, 333-342.
- Miles, M.S. (1989). Parents of critically ill premature infants: sources of stress. *Critical Care Nursing Quarterly*, **12**, 69-74.

- Miles, M.S., Funk, S.G. & Kasper, M.A. (1991). The neonatal intensive care unit environment: sources of stress for parents. *American Association of Child Nursing*, **2**, 346-354.
- Miles, M.S., Funk, S.G. & Kasper, M.A. (1992). The stress response of mothers and fathers of preterm infants. *Research in Nursing and Health*, **15**, 261-269.
- Miles, M.S. & Frauman, A. (1993). Nurses' and parents' negotiations of caregiving roles for medically fragile infants. In S.G. Funk, E.M. Tornquist, M. Champagne et al. (Eds), *Key Aspects of Caring for the Chronically Ill*, pp. 143-157. New York: Springer.
- Miles, M.S., Davis, D.H. & Shepherd, H. (1998). Maternal concerns about parenting prematurely born children. *American Journal of Maternal Child Nursing*, **23**, 70-75.
- Miller, B.C. & Sollie, D.L. (1980). Normal stresses during the transition to parenthood. *Family Relations*, **29**, 459-465.
- Monahan, T.P. (1962). When married couples part: statistical trends and relationships in divorce. *American Sociological Review*, **27**, 625-633.

- Moss, P., Bolland, G., Foxman, R. & Owen, C. (1986). Marital relations during the transition to parenthood. *Journal of Reproductive and Infant Psychology*, **4**, 57-67.
- Murray, L. (1992). The impact of postnatal depression on infant development. *Journal of Child Psychology and Psychiatry*, **33**, 543-561.
- Myers-Walls, J.A. (1984). Balancing multiple role responsibilities during the transition to parenthood. *Family Relations*, **33**, 267-271.
- Norton, R. (1983). Measuring marital quality: a critical look at the dependent variable. *Journal of Marriage and the Family*, **2**, 141-151.
- O'Brien, M., Soliday, E. & McCluskey-Fawcett, K. (1995). Prematurity and the neonatal intensive care unit. In M.C. Roberts et al. (Eds), *Handbook of Pediatric Psychology*, pp. 463-478. New York: Guilford Press.
- O'Brien, M., Asay, J.H. & McCluskey-Fawcett, K. (1999). Family functioning and maternal depression following premature birth. *Journal of Reproductive and Infant Psychology*, **17**, 175-188.

- O'Hara, M.W. & Swain, A.M. (1996). Rates and risk of postpartum depression: a meta-analysis. *International Review of Psychiatry*, **8**, 37-54.
- O'Leary, K.D. & Turkewitz, H. (1978). Methodological errors in marital and child treatment research. *Journal of Consulting and Clinical Psychology*, **46**, 747-758.
- Paludetto, R., Faggiano-Perfetto, M., Asprea, A.M., De Curtis, M. & Margara-Paludetto, P. (1981). Reactions of sixty parents allowed unrestricted contact with infants in a neonatal intensive care unit. *Early Human Development*, **5**, 401-409.
- Parke, R.D. & Anderson, E.R. (1987). Fathers and their at-risk infants. In P.W. Berman and F.A. Pedersen (Eds), *Men's Transitions to Parenthood: Longitudinal Studies of Early Family Experience*, pp. 197-215. New Jersey: Lawrence Erlbaum Associates.
- Patteson, D.M. & Barnard, K.E. (1990). Parenting of low birth weight infants: a review of issues and interventions. *Infant Mental Health Journal*, **11**, 37-56.
- Pearl, R. & Donahue, M. (1995). Brief report: four years after a preterm birth: children's development and their mothers' beliefs and expectations. *Journal of Pediatric Psychology*, **20**, 363-370.

- Pellegroni, P. & Swartz, L. (1980). Primigravida's perceptions of early postpartum. *Pediatric Nursing*, **11**, 25-27.
- Perehudoff, B. (1990). Parents' perceptions of environmental stressors in the special care nursery. *Neonatal Network*, **9**, 39-44.
- Pleck, J.H. (1981). *The Myth of Masculinity*. Cambridge, MA: MIT Press.
- Prudhoe, C.M. & Peters, D.L. (1995). Social support of parents and grandparents in the neonatal intensive care unit. *Pediatric Nursing*, **21**, 140-146.
- Raese, L. (1997). Perceptions of environmental stressors in the neonatal unit. *British Journal of Nursing*, **6** (16), 914-923.
- Reid, W.J. & Crisafulli, A. (1990). Marital discord and child behaviour problems: a meta-analysis. *Journal of Abnormal Child Psychology*, **18**, 105-117.
- Richards, M.P.M. (1983). Parent-child relationships: some general considerations. In J.A. Davis, M.P.M. Richards & N.R.C. Robertson (Eds), *Parent-Baby Attachment in Premature Infants*, pp. 28-43. Croom Helm, London.

- Rodholm, M. (1981). Effects of father-infant postpartum contact on their interaction three months after birth. *Early Human Development*, **5**, 79-85.
- Rubin, R. (1967). Attainment of the maternal role: part II - models and referents. *Nursing Research*, **16**, 342-346.
- Ruble, D.N., Fleming, A.S., Hackel, L.S. & Stangor, C. (1988). Changes in the marital relationship during the transition to first time motherhood: effects of violated expectations concerning division of household labour. *Journal of Personality and Social Psychology*, **55**, 78-87.
- Russell, G. (1982). Effects of maternal employment status on fathers' involvement in child care and play. *Australian and New Zealand Journal of Sociology*, **18**, 172-179.
- Rust, J. & Golombok, S. (1986). *The Golombok Rust Inventory of Sexual Satisfaction*. Windsor: NFER-NELSON.
- Rust, J., Bennun, I., Crowe, M. & Golombok, S. (1988). *The Golombok Rust Inventory of Marital State*. Windsor: NFER-NELSON.

- Rustia, J. & Abbott, D.A. (1990). Predicting paternal role enactment. *Western Journal of Nursing Research*, **12**, 145-160.
- Ryder, R.G. (1973). Longitudinal data relating marriage satisfaction and having a child. *Journal of Marriage and the Family*, **11**, 604-606.
- Sabatelli, R.M. (1988). Measurement issues in marital research: a review and critique of contemporary survey instruments. *Journal of Marriage and the Family*, **50**, 891-915.
- Sabourin, S., Lussier, Y., Laplante, B. & Wright, J. (1990). Unidimensional and multidimensional models of dyadic adjustment: a hierarchical reconciliation. *Psychological Assessment*, **2**, 333-337.
- Seashore, M.J., Leifer, A.D., Barnett, C.R. & Leiderman, P.H. (1973). The effects of denial of early mother-infant interaction on maternal self-confidence. *Journal of Personality and Social Psychology*, **26**, 369-378.
- Sharpley, C.F. & Cross, D.G. (1982). A psychometric evaluation of the Spanier Dyadic Adjustment Scale. *Journal of Marriage and the Family*, **8**, 739-741.

- Sharples, C.F. & Rogers, H.J. (1984). Preliminary validation of the abbreviated Spanier Dyadic Adjustment Scale: some psychometric data regarding a screening test of marital adjustment. *Educational and Psychological Measurement*, **44**, 1045-1049.
- Shellabarger, S.G. & Thompson, T.L. (1993). The critical times: meeting parental communication needs throughout the NICU experience. *Neonatal Network*, **12**, 39-44.
- Siebert, S.D. (1974). Toward a theory of role accumulation. *American Sociological Review*, **39**, 567-578.
- Siegel, R., Gardner, S.L. & Merenstein, G.B. (1993). Families in crisis: theoretical and practical considerations. In G.B. Merenstein & S.L. Gardner (Eds), *Handbook of Neonatal Intensive Care*, pp. 505-529. St Louis: Mosby Year Book.
- Spanier, G.B. (1976). Measuring dyadic adjustment: new scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*, **2**, 15-28.
- Spanier, G.B. & Cole, C.L. (1976). Toward clarification and investigation of marital adjustment. *International Journal of Sociology of the Family*, **6**, 121-146.

- Spanier, G.B. (1979). The measurement of marital quality. *Journal of Sex and Marital Therapy*, **5**, 288-300.
- Spanier, G.B. & Filsinger, E.E. (1983). Clinical use of the Dyadic Adjustment Scale. In E.E. Filsinger (Ed), *A Sourcebook of Marriage and Family Assessments*, pp. 155-168. Beverley Hills, CA: Sage.
- Steele, K.H. (1987). Caring for parents of critically ill neonates during hospitalisation: strategies for health care professionals. *Maternal Child Nursing Journal*, **16**, 13-27.
- Stern, M. & Karraker, K.H. (1990). The prematurity stereotype: empirical evidence and implications for practice. *Infant Mental Health Journal*, **11**, 3-11.
- Thornton, R. & Nardi, P.M. (1975). The dynamics of role acquisition. *American Journal of Sociology*, **80**, 870-885.
- Tobey, G.Y. & Schraeder, B.D. (1990). Impact of caretaker stress on behavioural adjustment of very low birth weight preschool children. *Nursing Research*, **39**, 84-89.
- Trause, M.A. & Kramer, L.I. (1983). The effects of premature birth on parents and their relationship. *Developmental Medicine and Child Neurology*, **25**, 459-465.

- Trost, J.E. (1985). Abandon adjustment! *Journal of Marriage and the Family*, **11**, 1072-1074.
- Waldron, H. & Routh, D.K. (1981). The effect of the first child on the marital relationship. *Journal of Marriage and the Family*, **11**, 785-788.
- Walker, G. J., Manion, I.G., Cloutier, P.F. & Johnson, S.M. (1992). Measuring marital distress in couples with chronically ill children: the dyadic adjustment scale. *Journal of Pediatric Psychology*, **17**, 345-357.
- Wallace, P.M. & Gotlib, I.H. (1990). Marital adjustment during the transition to parenthood: stability and predictors of change. *Journal of Marriage and the Family*, **52**, 21-29.
- Watson, J.P., Elliott, S.A., Rugg, A.J. & Brough, D.I. (1984). Psychiatric disorder in pregnancy and the first postnatal year. *British Journal of Psychiatry*, **144**, 453-462.
- Warner, R., Appleby, L., Whitton, A. & Faragher, B. (1996). Demographic and obstetric risk factors for postnatal psychiatric morbidity. *British Journal of Psychiatry*, **168**, 607-611.

Weiss, C.H. (1972). *Evaluation Research*. New Jersey: Prentice Hall.

Whiffen, V.E. & Gotlib, I.H. (1989). Stress and coping in maritally distressed and nondistressed couples. *Journal of Social and Personal Relationships*, **6**, 327-344.

Wolke, D. (1991). Annotation: supporting the development of low birthweight infants. *Journal of Child Psychology and Psychiatry*, **32**, 723-741.

Wolke, D., Sohne, B., Ohrt, B. & Riegel, K. (1995). Follow-up of preterm children: important to document dropouts. *The Lancet*, **345**, 447.

Worthington, E.L. & Buston, B.G. (1986). The marriage relationship during the transition to parenthood. *Journal of Family Issues*, **7**, 443-473.

Yogman, M.W. (1987). Father-infant caregiving and play with preterm and full-term infants. In P.W. Berman & F.A. Pedersen (Eds), *Men's Transitions to Parenthood: Longitudinal Studies of Early Family Experience*, pp.175-195. New Jersey: Lawrence Erlbaum Associates.

- Yogman, M.W., Kindlon, D. & Earls, F. (1995). Father involvement and cognitive/behavioural outcomes of preterm infants. *Journal of the American Academy of Child and Adolescent Psychiatry*, **34**, 58-66.
- Yogman, M.W. & Kindlon, D. (1998). Pediatric opportunities with fathers and children. *Pediatric Annals*, **27**, 16-22.
- Yu, V.H., Jamieson, J. & Astbury, J. (1981). Parents' reactions to unrestricted parental contact with infants in the intensive care nursery. *The Medical Journal of Australia*, **1**, 294-296.
- Zaslow, M.J., Pederson, F.A., Cain, R.L., Suwalsky, J.T.D. & Kramer, E.L. (1984). Depressed mood in new fathers: association with parent-infant interaction. *Genetic, Social, and General Psychology Monographs*, **111**, 127-150.
- Zelkowitz, P. & Milet, T.H. (1996). Postpartum psychiatric disorders: their relationship to psychological adjustment and marital satisfaction in the spouses. *Journal of Abnormal Psychology*, **105**, 281-285.
- Zeskind, P.S. & Iacino, R. (1984). Effects of maternal visitation to preterm infants in the neonatal intensive care unit. *Child Development*, **55**, 1887-1893.

APPENDIX 1

Ethics of Research Committee Correspondence

Dear Ms Lees

RE: A Study of Relationship Stress and its Sources in Mothers and Fathers of Premature Infants in the Neonatal Unit

Thank you for your application for the above study which was considered by Forth Valley Ethics of Research Committee on 26 November 1998.

As discussed on the telephone I regret to inform you that the Committee decided to defer granting approval for the following reasons:

- The main reason was that the GRIMS questionnaire was felt to be very intrusive and contained very personal questions. It incorporates a lot of possible trigger points about emotions that the parents may not wish to consider at this particular time. It was the belief that the GRIMS was an indicator of compatibility and not of stress.
- The Committee asked if you had considered adjusting for demographic details in your analysis.
- The Committee would advise having an information sheet, consent form and appropriate interview schedule for the control group.
- The Patient Information Sheet should be altered to refer to the research straight away and should refer to meeting parents in their home if that is what you intend doing.

To clarify the above the Committee feels it would be useful for you to attend the next meeting on 10 December at 1.30 p.m. as discussed on the telephone. I look forward to seeing you then.

Yours sincerely

Mrs X

Secretary to the Ethics of Research Committee

APPENDIX 2

DAS

Name:

D.O.B.:.....

Name of Partner/Spouse :

Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list, by placing a tick.

		<i>Always Agree</i>	<i>Almost Always Agree</i>	<i>Occasionally Disagree</i>	<i>Frequently Disagree</i>	<i>Almost Always Disagree</i>	<i>Always Disagree</i>
1.	Handling family finances						
2.	Matters of recreation						
3.	Religious matters						
4.	Demonstrations of affection						
5.	Friends						
6.	Sex relations						
7.	Conventionality (correct or proper behaviour.)						
8.	Philosophy of life						
9.	Ways of dealing with parents or in-laws						
10.	Aims, goals and things believed important						
11.	Amount of time spent together						
12.	Making major decisions						
13.	Household tasks						
14.	Leisure time interests and activities						
15.	Career decisions						
		<i>All the time</i>	<i>Most of the time</i>	<i>More often than not</i>	<i>Occasionally</i>	<i>Rarely</i>	<i>Never</i>
16.	How often do you discuss or have you considered divorce, separation, or terminating your relationship?						
17.	How often do you or your mate leave the house after a fight ?						
18.	In general, how often do you think that things between you and your partner are going well ?						
19.	Do you confide in your mate ?						
20.	Do you ever regret that you married ? (or lived together)						
21.	How often do you and your partner quarrel?						
22.	How often do you and your mate "get on each other's nerves?"						
			<i>Every Day</i>	<i>Almost Every Day</i>	<i>Occasionally</i>	<i>Rarely</i>	<i>Never</i>
23.	Do you kiss your mate ?						
			<i>All of them</i>	<i>Most of them</i>	<i>Some of them</i>	<i>Very few of them</i>	<i>None of them</i>
24.	Do you and your mate engage in outside interests together ?						

How often would you say the following events occur between you and your mate ?

		<i>Never</i>	<i>Less than once a month</i>	<i>Once or twice a month</i>	<i>Once or twice a week</i>	<i>Once a day</i>	<i>More often</i>
25.	Have a stimulating exchange of ideas						
26.	Laugh together						
27.	Calmly discuss something						
28.	Work together on a project						

These are some things about which couples sometimes agree and sometime disagree. Indicate if either item below caused differences of opinions or were problems in your relationship during the past few weeks. (Check yes or no.)

	Yes	No
29.		
30.		

Being too tired for sex.

Not showing love

31. The dots on the following line represent different degrees of happiness in your relationship. The middle point, "happy" represents the degree of happiness of most relationships. Please circle the dot which best describes the degree of happiness, all things considered, of your relationship.

.

← →

Extremely Fairly A Little Happy Very Extremely Perfect
Unhappy Unhappy Unhappy Happy Happy

32. Which of the following statements best describes how you feel about the future of your relationship?

_____ I want desperately for my relationship to succeed, and *would go to almost any length* to see that it does.

_____ I want very much for my relationship to succeed, and *will do all I can* to see that it does.

_____ I want very much for my relationship to succeed, and *will do my fair share* to see that it does.

_____ It would be nice if my relationship succeeded, but *I can't do much more than I am doing now* to help it succeed.

_____ It would be nice if it succeeded, but *I refuse to do any more than I am doing now* to keep the relationship going.

_____ My relationship can never succeed, and *there is no more that I can do* to keep the relationship going.

APPENDIX 3

**Semi-Structured Tape-Recorded Interviews with Mothers and Fathers of
Premature Infants (Individually)**

[At start of interview re-assess using DAS relationship stress questionnaire]

- How would you rate your relationship (1-10) before the pregnancy?

NICU Experiences:

- Was your pregnancy planned? Was it a natural conception? (e.g. use of fertility drugs / IVF / etc.) How long had you been trying for a baby?

Role Conflict / Strain:

- Do you have any feelings / beliefs about the 'cause' of your baby's premature birth?
Is this a source of conflict with your partner?
- Could you tell me about some of your experiences in the hospital / Neonatal Unit?
 - What were your best and your worst experiences in the unit?
 - How did you feel about the technical equipment in the Unit?

Shared Roles / Equality:

- Did you feel you had access to all information relating to your baby's health?
- Did you feel excluded from your baby's care?
- Did any particular people seem to be closer to your baby than you? When did this change? Did this change?
- Did you feel at any time that your baby was / wasn't wholly yours?
- When did you feel a real bond to your baby? / Have you felt a real bond to your baby?
- Did you feel that staff treated you and your partner equally?
- Could you tell me some more about your time in the unit?
 - How did the Neonatal Unit environment affect your relationship with your partner?

- How did you deal with tensions between yourself and your partner whilst on the Unit?
- Were you and your partner given enough time and space on the Unit to make decisions relating to your baby?

Post-Discharge Experiences:

Role Competence:

- How has your partner coped / adjusted to the new baby?

Traditional Gender Roles / Role Expectations:

- Do you think that mothers and fathers should share roles equally in the care of their children? Have you always felt this way, or has the arrival of your baby changed your view?
- Would you plan to have another baby some time in the future?
- How would you rate your relationship (1-10) today?

APPENDIX 4

Participant Information Sheet for Mothers and Fathers of Premature InfantsResearch Information Sheet

When you visit the Neonatal Intensive Care / Special Care Unit you will be approached briefly to answer some questions on how you and your partner are coping at the present time with your current situation. We would like to ask your permission to use your answers for research purposes. Medical and Psychology staff in the Unit are interested in measuring the impact of a premature birth on both mothers and fathers and their relationship with one another. We appreciate that this is a difficult and stressful time for you and your family and that there are probably lots of time pressures on you at the moment, but we believe that your answers to a few simple questions could help to improve the care for parents like you and their babies within the Unit and to improve the support provided after babies are discharged home.

It should take no more than 5 minutes to complete the questionnaires. Don't think too hard about your answers. You can take the questionnaires away with you and return them in the prepaid envelope or hand them in to staff at the Unit when you return. We may approach you again in several weeks time and would arrange to meet at your convenience at the outpatient clinic or in your own home for some more information on how you and your partner have been coping.

Your answers would be treated in complete confidence and your name would not be included. We would like to include as many people as possible, however you would be free to withdraw from the research at any time. If you decide that you would not like to take part in the research or answer the questions, we would respect your wishes and it would obviously not affect yours or your baby's treatment in the Unit.

If you would like more information about the study or have any other queries please contact me, **Melanie Lees** (Psychologist), at:

Consent Form for Mothers and Fathers of Premature Infants

Research Consent Form

I _____ (PRINT FULL NAME) agree to my answers being used (anonymously) in the research.

I understand that I may withdraw from the study at any time.

I understand that this will not affect my baby's or my own treatment in the Neonatal Unit.

Signed: _____

Participant Information Sheet for Mothers and Fathers of Full Term InfantsResearch Information Sheet

When you visit the Postnatal wards you will be approached briefly to answer some questions on how you and your partner are coping at the present time. We would like to ask your permission to use your answers for research purposes. Medical and Psychology staff in the Hospital are interested in measuring the impact of fullterm and premature birth on both mothers and fathers and their relationship with one another. We appreciate that this may be a stressful time for you and your family and that there are probably lots of time pressures on you at the moment, but we believe that your answers to a few simple questions could help to improve the care for parents like you and their babies within the Hospital and to improve the support provided after babies are discharged home.

It should take no more than 5 minutes to complete the questionnaires. Don't think too hard about your answers. You can take the questionnaires away with you and return them in the prepaid envelope or hand them in to staff at the Unit when you return. We may approach you again in several weeks time and would arrange to meet at your convenience at the outpatient clinic or in your own home for some more information on how you and your partner have been coping.

Your answers would be treated in complete confidence and your name would not be included. We would like to include as many people as possible, however you would be free to withdraw from the research at any time. If you decide that you would not like to take part in the research or answer the questions, we would respect your wishes and it would obviously not affect yours or your baby's treatment.

If you would like more information about the study or have any other queries please contact me, **Melanie Lees** (Psychologist), at:

Consent Form for Mothers and Fathers of Full Term Infants

Research Consent Form

I _____ (PRINT FULL NAME) agree to my answers being used (anonymously) in the research.

I understand that I may withdraw from the study at any time.

I understand that this will not affect my baby's or my own treatment.

Signed: _____

APPENDIX 5

Quantitative Data Output

Normality of the Data

Table 3.1.1: Full term parent descriptives (N = 56)

	SKEWNESS *		KURTOSIS *	
	Statistic	Standard Error	Statistic	Standard Error
Age	-.644	.319	-.349	.628
Education in Years	.765	.319	-.702	.628
Length of Relationship	.448	.319	-.826	.628
Gender	1.078	.319	-.871	.628
Marital Status	1.304	.319	-.312	.628
First Child	.147	.319	-.195	.628

Table 3.1.1: Pre-term parent descriptives (N = 14)

	SKEWNESS *		KURTOSIS *	
	Statistic	Standard Error	Statistic	Standard Error
Age	-.458	.597	-.695	1.154
Education in Years	.846	.597	-.505	1.154
Length of Relationship	.503	.597	-.802	1.154
Gender	.670	.597	-1.838	1.154
Marital Status	1.067	.597	-1.034	1.154
First Child	.670	.597	-1.838	1.154

*(reject normality if ratio of skewness- / kurtosis-standard error is <-2 or > 2)

APPENDIX 6

Qualitative Data

1. Role Conflict

a) NICU experiences

I sat down and said it was all my fault [mum 1]

I was unable to continue a pregnancy [mum 2]

I'm sure my husband'll fill in his form...he's more likely to fill it in than I am...any excuse not to be helping with the baby I suppose [mum 3]

I don't know why they come early but I think work was probably quite stressful at the time [mum 4]

I think my husband was more nervous than I was...he said let them take him away [mum 3]

I held him for a wee minute...my husband didn't hold him then...he just wanted him to go away [mum 4]

I think I should have realised sooner I was having contractions [mum 5]

I did blame myself [mum 4]

it's something I'd done...you know like stripping his bedroom [mum 5]

I felt I wasn't meant to have a baby properly [mum 5]

I always said I was a funny shape...I always thought I would go early...because I was always low down [mum 5]

if only I had sat down more often or something like that [mum 3]

I wanted to be there longer...mr x felt that I spent too much time [mum 3]

once mr x was back to working away I got my time to spend that I wanted to...then we got the balance when mr x was home for us to spend time together [mum 5]

everything else...everyone else...is put to one side [mum 3]

I thought I might have given her more stress than she needed [dad 6]

I didn't want to get as involved as [mrs x] from the start...didn't hold out much hope [dad 7]

I didn't want to hold him...not then...my wife did [dad 6]

I just thought no I don't want to hold him just now...I just want to get him upstairs and feel more relaxed...I wouldn't have been able to relax and hold him at that stage [dad 7]

my main concern was that mrs x didn't feel that she was thinking that it was her fault [dad 8]

I'll be honest with you...[mrs x] is more important than the kid...and that's not being rotten [dad 8]

b) Post-Discharge experiences

he just wants you to help him constantly [mum 1]

whether it's because he's not used to babies or because all of a sudden she was home and it was a big responsibility 24 hours [mum 2]

I think that's where the tensions are...just trying to manage the 2 children [mum 3]

there's been a few fraught moments [mum 4]

home life is rather entertaining [mum 3]

I think I'm someone who I think do an awful lot more than I actually do...in the house [dad 7]

I think I recognise the tensions now...the thing with the housework [dad 8]

we found it strange at first [dad 7]

2. Shared Roles

a) NICU experiences

I just hope he'll do more of the housework now...like he promised he would [mum 5]

the nurses...always made it known that here's your mum and dad [mum 2]

they were all very good at saying mummy's here [mum 3]

they were very aware of both of us [mum 4]

we just pulled closer for the sake of her or ourselves [mum 1]

I would feel we are all stronger of it [mum 1]

we took our turns [mum 3]

we were just more support to each other when it comes things like that [mum 2]

they didn't not let us get attached...we were allowed to do most things for him [mum 4]

when we were both there I think they addressed us both...I can't remember thinking that they didn't [mum 5]

mr x was treated equally too...they spoke to him just as they did to me [mum 2]

if mr x was there first they would tell him [mum 4]

it was very equal [mum 5]

I felt that mr x got the same treatment as I did [mum 4]

the nurses were very loving towards him...but at the same time they weren't too clinical with it [mum 5]

I felt quite involved in the early stage [dad 8]

when she was in the incubator they got me involved quite quickly [dad 9]

on the whole I was involved very quickly [dad 7]

I had decided before then I was going to get involved...my dad was never as involved as he would have liked to have been [dad 6]

they said I could have gone and seen him...but I wasn't really wanting to...I was wanting to see him...but I was wanting to go up with mrs x [dad 7]

they didn't keep anything...no...not a thing...sometimes 2 or 3 nurses would come up and say the same thing [dad 6]

I never felt that I was actually just the husband as such [dad 8]

for 3 and a half months we used to say we'll go out for a meal and forget about this [dad 7]

I liked the idea that we could change him quickly...because you could go in and do his care [dad 8]

b) Post-Discharge experiences

I think I'm someone who I think do an awful lot more than I actually do...in the house [dad 7]

I think I probably do as much as I think on the childcare stuff [dad 9]

I'd hate to think I was missing out on something [dad 6]

the nurses sort of encourage us to touch him probably from the first day [dad 8]

3. Traditional Gender Roles

a) NICU experiences

I do think they talk to the mothers more...that's because the mothers are there more [mum 4]

the husband's still have to go to work...I think it's difficult for them [mum 5]

my wife got most of the information...when I was at work [dad 7]

I certainly didn't spend as much time with him...and mrs x was trying to breast feed...so she was a bit closer [dad 7]

I definitely think they addressed more stuff to my wife when we were together [dad 10]

the junior staff...well registrars and down didn't really talk to me too much [dad 8]

b) Post-Discharge experiences

My first marriage ended because of the baby...he [my husband] saw me differently after the birth...he thought I shouldn't go back to work...always stay at home with the baby [mum 5]

you've still got to do the washing and ironing...cook the dinner...make sure the bathroom's clean [mum 1]

I've told mr x to stay at home all day and I'll go back to work...and he says oh no not that [mum 5]

I've been stuck in here from half past six this morning...whereas he's gone out and had some fresh air and talked with other people at work [mum 3]

I think men of my generation tend to think that they're new men and do a lot in the house but they don't do as much as they think they do...I don't think roles have changed that much...but I'm trying to do more [dad 8]

if she doesn't say anything then I'll not do anything...I'll only do it when she tells me...just a typical man I suppose [dad 7]

I think it's actually been easier since I've been back at work...she's got herself into a routine now [dad 6]

4. Role Expectations

a) NICU experiences

I think him being at the birth has brought us even closer...but who knows what will happen in the next wee while [mum 5]

I'll need a lot more help at home with the baby ...but who knows...I'll just have to wait and see what happens...to be honest I'm not holding out much hope [mum 4]

all that stuff gets shelved when you've got a baby in NICU everything just focuses on the baby [mum 2]

you just don't do anything...you just focus on the baby for that time [mum 4]

you just want to spend all the time just in case you don't have any more time [mum 2]

b) Post-Discharge experiences

you can't help but worry that things will change [mum 5]

we've got a four year old...our marriage has never really been the same since then...obviously...and when it's the second it'll be even worse [mum 2]

it certainly has put me off having another baby [mum 1]

mr x would love to have more children...more than I would [mum 4]

I don't think we'll have any more [mum 5]

there's no illusions about the housework I've always done that...I always probably will do [mum 4]

there's got to be a balance...I need time too...an hour out here and there would be quite nice too [mum 2]

when you get home there's no one to tell you what to do [mum 5]

you think it's hard going up and down to the hospital but it really hits you when you get home [mum 3]

it's taking mr x longer to realise that the baby's at home now he's 24 hours a day 7 days a week [mum 2]

it does take a lot of adjusting to...just getting into a routine [mum 5]

life doesn't remain the same [mum 1]

I think it's just taking mr x time to come round to the fact that baby x is a full time job [mum 3]

I don't think I realised until mrs x laid it on the line to me that...just how much she's got to cope with at home [dad 7]

hopefully...touch wood...things are going to improve [dad 6]

now he's ours and now he's our responsibility and that's the difference...that's definitely the big difference...now he's ours [dad 10]

I think it's great...it's heavy going but I think we're having a great time [dad 8]

5. Role Competence

a) NICU experiences

so I was aware that oh are they making a note about this...but I am aware of that...and I wanted to keep everything as if in between...on the surface...between my wife and I in front of the medical staff as if everything was smooth and light [dad 8]

b) Post-Discharge experiences

I said to him they'll be times when I'm not in and you'll have to do it...so there's no point us doing it together [mum 1]

at night the baby must be up every 2 hours...but my husband doesn't here it [mum 2]

I don't know if it's the same in every relationship but there's always different standards of how things should be done [mum 3]

mr x watches his bath...but doesn't bath him [mum 5]

I've tried to walk away and leave him...but he comes back through and he's sweating and he says oh here he is you'll have to feed him cause he's widdled everywhere or something [mum 3]

I think it'll just take time to work on...because he's still apprehensive [mum 4]

I'd like for me to have a night right now and do something for me...it'll just take time to build things up [mum 1]

she's very tired [dad 9]

I've been trying over the last week to do a lot more [dad 7]

I think it's heavy...she's coped...I really do think it's been heavy on her [dad 7]